



# CSB IAS ACADEMY

*The Road Map to Mussoorie...*

## IMPACT

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## CURRENT AFFAIRS

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## for UPSC Prelims 2024

**Dear Aspirants,**

As we step into the crucial month of September, with the UPSC Civil Services Mains Exam just around the corner, the August edition of CSB IAS's Academy is here to provide you with the final boost in your preparation. This is the time to sharpen your knowledge, refine your answer-writing skills, and stay updated with the latest developments that could be pivotal in your exam performance.

This month's iMPACT delves into significant and pressing topics, including the recent **Wayanad landslide** and the issue of **women's safety in India**, the debate surrounding **lateral entry into bureaucracy**, and the contentious matter of **sub-classification of SCs and STs**, followed by an **analysis of India's Olympics performance**. We explore critical issues such as the proposed **Unified Pension Scheme (UPS)**, the **corporatisation of scientific research in India**, **dengue vaccination**, and many more.

With these insights, iMPACT aims to bridge the gap between your static syllabus and the dynamic nature of current affairs, ensuring that you are well-prepared to tackle the diverse range of questions that the Mains exam may present.

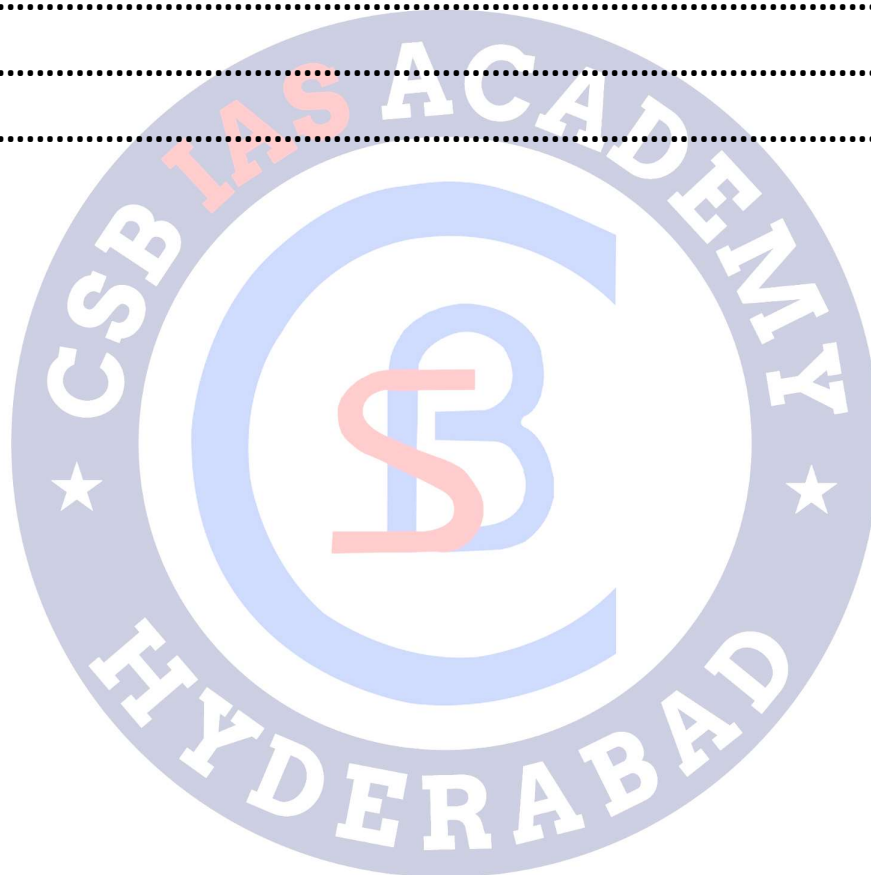
**Happy Learning!**

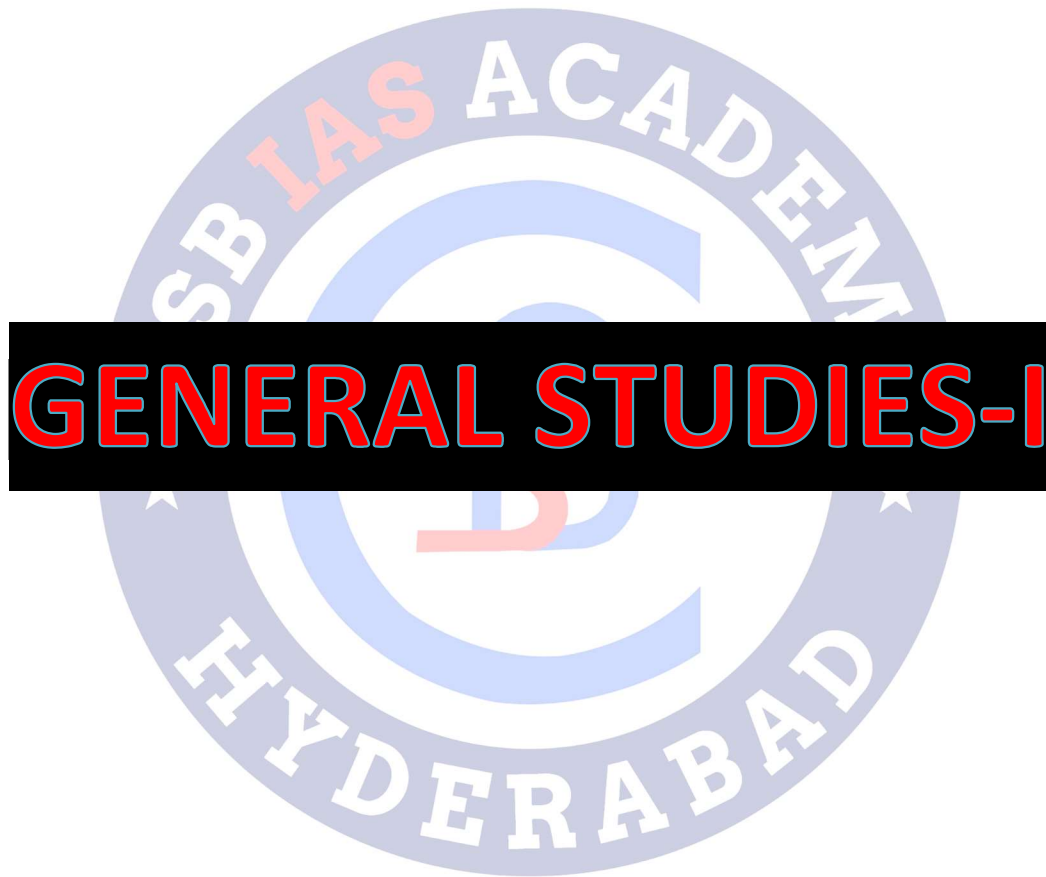
**Team CSB IAS ACADEMY**

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# 1. LANDSLIDES

## IMPACT ANALYSIS

### SYLLABUS:

GS 1> Geography> Geophysical phenomena

### REFERENCE NEWS:

- The recent Wayanad landslides have emerged as one of Kerala's most devastating landslide-related disasters in terms of casualties, with more than 100 people confirmed dead. This incident has surpassed previous landslides in scale and impact, making it a significant tragedy for the region.

### FACTORS BEHIND THE WAYANAD LANDSLIDE:

The Wayanad disaster highlights the combined influence of extremely heavy rainfall, fragile ecological conditions, and increasing population pressures in the region.

- **High Landslide Susceptibility:** According to the **Landslide Atlas released by the Indian Space Research Organisation's (ISRO)** National Remote Sensing Centre last year(2023), **10 out of the 30** most landslide-prone districts in India are **in Kerala**, with Wayanad ranked 13th. This highlights the district's significant vulnerability to such disasters.
- **Extremely Heavy Rainfall:** Wayanad experienced unprecedented rainfall, with over **140 mm in a 24-hour period**, five times the expected amount. Certain areas within the district reported over 300 mm of rainfall, significantly contributing to the disaster.
- **Fragile Ecology and Geological Conditions:** Wayanad, part of the Western Ghats, is characterized by **steep slopes** and a geological composition of **soil layers atop hard rocks**. Heavy rainfall saturates the soil, causing water to flow between the soil and rock layers, weakening the soil's grip and triggering landslides.
- **Population Pressures and Land Use:** Increasing population and human activities have exacerbated the region's vulnerability to landslides. Environmentalists emphasize the need for **strict land use regulations** to prevent activities that heighten risks.
- **Ignored Warnings from the Madhav Gadgil Panel Report:** The Madhav Gadgil-led Western Ghats Ecology Expert Panel (WGEEP) report of 2011 had warned against activities in **Ecologically Sensitive Areas (ESAs)** like **Meppadi, where the landslide occurred**. The report recommended categorizing regions into ESZ-I and ESZ-II with strict restrictions on quarrying and construction, which were largely ignored by successive governments.

## WHAT ARE LANDSLIDES:

- The term “landslide” denotes the **downward and outward movement** of materials including rock, earth or debris down a slope due to gravitational force.
- Avalanche is the down slope movement of large detached mass of snow and ice along with rock fragments, soil and vegetation.
- They are disasters of **Hydrogeological origin**, which result in the failure of the materials which fall down the slope due to force of gravity.

## INDIA'S VULNERABILITY:

- According to the Geological Survey of India, landslides affect at **least 12.6% of India's land area**, which exceeds 0.42 million square kilometres. The phenomenon is pronounced during the monsoon period.
- Landslides of different types are frequent in geodynamically active domains in the **Himalayan and Arakan-Yoma belt** of the North-Eastern parts as well as in the relatively stable domains of the **Meghalaya Plateau, Western Ghats and Nilgiri Hills**.
- The two regions most vulnerable to landslides are the **Himalayas and the Western Ghats**.

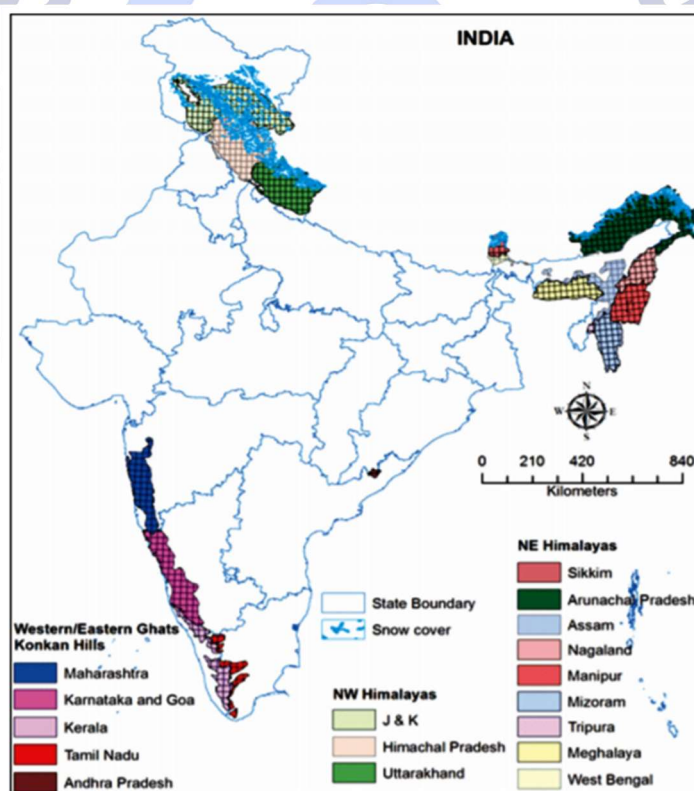


Figure 1: Major landslide prone areas of India (0.42 Million km<sup>2</sup>)

- The Himalayan mountain belt is comprised of **tectonically unstable younger geological formations** subjected to severe seismic activity. **The Western Ghats and Nilgiris are geologically stable but have uplifted plateau margins** influenced by neo-tectonic activity.

- Compared to the Western Ghats region, the **slides in the Himalayas region are huge and massive**, and in most cases, the overburden along with the underlying lithology is displaced during sliding, particularly due to the seismic factor.
- Sporadic occurrences of landslides have been reported in the Eastern Ghats, Ranchi Plateau, and Vindhyan Plateau as well.
- The **Geological Survey of India (GSI) is the nodal agency** for landslide management.

#### WHAT MAKES INDIA VULNERABLE:

- **Young geology:**
  - Himalayas are mostly composed of **highly unconsolidated sedimentary rocks**, which get easily disturbed under stress.
  - For instance, **the 2013 Kedarnath floods**, exacerbated by the **region's fragile geological structure**, resulted in over 5,000 deaths. The disaster highlighted the instability of the Himalayan geology under stress
- **Swift rivers:**
  - The numerous rapid flowing streams in the Himalayan and Western ghats region erodes and undercuts hills, creating steep banks which aid in rapid movement of materials.
  - For instance, the August **2018 landslides in Kerala**, caused by unprecedented rainfall, were worsened by the **natural erosion processes of swift rivers**, leading to significant destruction and loss of life.
- **Tectonic activities:**
  - Himalayas lie at the **convergence zone of the Indian and Eurasian tectonic plates**. Hence, the range is geologically very active, resulting in the formation steep slopes, fragile rock structure and rugged topography.
  - For instance, the **2021 landslides in Himachal Pradesh**, triggered by heavy rains and tectonic activity, caused significant damage, blocking highways and resulting in fatalities
- **Heavy rainfall:**
  - Water or snowfall can trigger landslides as it alters the pressure within the slope, which leads to slope instability. Also, it can lead to the rise in groundwater levels and formation of **water saturated particles**. The Himalayas and the Western ghats are among the areas that receive short-period, **high-intensity rainfall and hence landslides** are frequent here.
  - For instance, the **recent Wayanad disaster, with over 140 mm of rainfall in 24 hours**, is a stark example of how intense rainfall can cause devastating landslides.
- **Anthropogenic activities:**



- Deforestation, highway and building excavations, mine-waste piles, open-pit mines and quarries and shifting cultivation result in the region alters the slope and leads to landslides. Also, hydraulic constructions such as Multipurpose dams alters the groundwater levels, thereby aiding landslides.
- For instance, **the Char Dham road project** in Uttarakhand has significantly increased landslide risks by damaging the fragile Himalayan ecosystem. The project involved extensive **cutting of hills and deforestation**, which destabilized slopes and led to numerous landslides.
- **Activities in Ecologically Sensitive Areas:**
  - The Madhav Gadgil-led Western Ghats Ecology Expert Panel (WGEEP) report of 2011 warned against activities in Ecologically Sensitive Areas (ESAs) and recommended strict restrictions on quarrying and construction.
  - **For instance**, ignored warnings from the Madhav Gadgil report about regulating activities in Ecologically Sensitive Areas like Meppadi, where the recent Wayanad landslide occurred, have increased vulnerability due to continued quarrying and construction.
- **Forest fires:**
  - Severe wildfires damage the forest canopy, the plants, as well as the soil. The loss of deep-rooted vegetation creates loose soil. These factors can result in increased runoff after intense rainfall or rapid snowmelt, which increases chances of landslides.
  - For instance, the early **2021 forest fires in Uttarakhand** destroyed vegetation in several districts. Subsequent monsoon rains led to severe landslides in areas like Chamoli and Nainital, exacerbated by the loss of stabilizing vegetation.

#### NDMA GUIDELINES ON LANDSLIDE MANAGEMENT:

- The National Disaster Management Guidelines for Management of Landslides and Snow Avalanches include a wide range of scientific, planning, and administrative tools to address various aspects of these hazards to effectively reduce losses from them.



#### OTHER MEASURES TAKEN:

- **National Landslide Risk Management Strategy:**
  - It is a strategy document by the NDMA to strengthen and mainstream landslide management. Its key aspects include:
    - Preparation of **Landslide Hazard Zonation maps**
    - Developing and implementing **Landslide Monitoring and Early Warning System**
    - **Participatory approach** in awareness generation and preparedness
    - Management and Inclusion of new **technology inputs for capacity building** and training programs
    - Preparation of **Mountain Zone Regulations and Policies**
    - **Stabilization and Mitigation** of Landslide and Creation of Special Purpose Vehicle (SPV) for Landslide Management
- **Landslide Atlas of India:**
  - **The National Remote Sensing Centre (NRSC)** under ISRO has released the **Landslide Atlas of India** in 2023. It is a detailed guide identifying landslide hotspots in the country.
  - For the first time, scientists did a **risk assessment on the basis of 80,000 landslides recorded between 1998 and 2022** in 147 districts in 17 states and two Union Territories to build a "**Landslide Atlas**" of the country.

- The atlas **used satellite data of ISRO** to map all seasonal and event-based landslides, like the Kedarnath disaster in 2013 and landslides triggered due to the Sikkim earthquake in 2011.
- Extra reading: <https://ilearncana.com/details/Landslide-Atlas-of-India/4185>
- **National Landslide Susceptibility Map by IIT Delhi:**
  - IIT Delhi has developed India's first national landslide susceptibility map with high-resolution mapping at 100 square meters. The map identifies traditional and new high-risk zones, including areas in the Eastern Ghats. Using ensemble machine learning, it improves prediction accuracy and addresses data gaps.
- **National Landslide Susceptibility Mapping (NLSM) programme:**
  - Geological Survey of India has launched a national programme on landslide susceptibility mapping with an aim to cover the 0.42 million sq. km landslide prone areas of the country. This national programme was formally launched in 2014.

#### CHALLENGES TO LANDSLIDE MITIGATION & MANAGEMENT:

- **Ad hoc strategies:**
  - Landslide management measures are generally **planned on an ad hoc basis to give immediate relief to affected people**. The strategies **focus on post disaster relief measures** than on pre-disaster risk reduction planning.
- **Outdated maps:**
  - Majority of the existing Land Zonation Maps (LSZ) lack micro levels details of slopes and landslide events of the past. Also, **State-wise and district-wise landslide zonation maps are mostly not available** for landslide prone areas.
- **Weak forecasting:**
  - In Indian Himalayas, the **poor network of weather stations and lack of high elevation rain gauges** mars the collection of useful data that can help establishing meaningful predictions. Climate change induced variations is worsening this situation.
- **Poor law enforcement:**
  - Laws exist to regulate activities in landslide-prone areas, but enforcement is lax, as seen in widespread construction, illegal mining, and deforestation in sensitive regions like the Himalayas and Western Ghats.
- **Lack of Public awareness:**
  - The main cause of losses during landslides is the lack of awareness among the people regarding the potential landslide zones and mitigation strategies, as **awareness programmes are not reaching the communities**.
- **Population pressure:**

- **The demand for land** in India is severe due to its rising population. Also, hilly areas have economic significance in the form of plantations, timber and construction material. Hence, it is difficult to completely prohibit land use in the areas or enforce stringent environment laws.

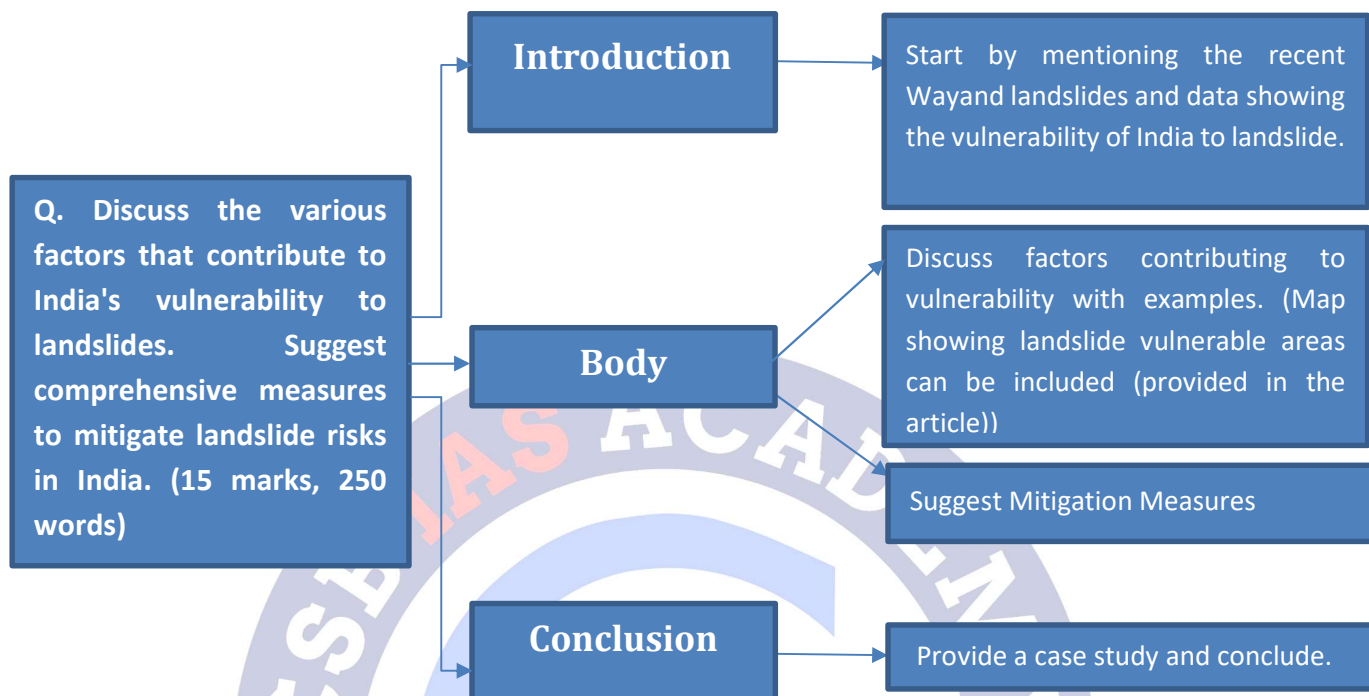
#### WAY FORWARD:

- **Preparedness-Centric Approach:** Implement integrated pre-disaster preparation and disaster risk mitigation strategies as a key aspect of governance and development planning in India.
- **Research and Development:** Establish a national center for landslide research, studies, and management; develop strategies for micro and meso level zonation maps and a landslide database.
- **Budgetary Allocation:** Allocate funds specifically for landslide management in the budgets of Public Works, Irrigation, Rural Engineering Services, and Disaster Management Departments in landslide-prone states.
- **Eco-Sensitive Zones:** Implement recommendations from the Madhav Gadgil report to establish Ecologically Sensitive Zones (ESZs) across the Western Ghats, regulating activities such as quarrying and construction to preserve the fragile ecosystem and prevent landslides.
- **Forecasting & Early Warning Systems:** Enhance forecasting capabilities through maintenance and investment in new systems, and utilize IT tools for real-time data dissemination and warnings.
- **Techno-Legal Regime:** Regulate development in landslide-prone areas with specific land use policies, zoning regulations, and socio-economic profiling of local communities.
- **Community Participation:** Engage local communities and NGOs in awareness and capacity building, including Community Education Programmes in vulnerable areas.
- **International Cooperation:** Facilitate interaction between state governments, NDMA, and international bodies to exchange best practices and advancements in landslide management.

#### **PRACTICE QUESTION:**

**Q. Discuss the various factors that contribute to India's vulnerability to landslides. Suggest comprehensive measures to mitigate landslide risks in India. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

Landslides, a significant geophysical phenomenon in India, impact **12.6% of the land area**, covering over 0.42 million square kilometres (Source: Geological Survey of India), particularly during the **monsoon season**. Recent events, like the **devastating Wayanad landslides**, which claimed over 100 lives, underscore the increasing scale and impact of such disasters, exacerbating the need for effective management and mitigation strategies.

### Factors Contributing to Vulnerability

- **Geological Factors:**
  - India's geology, especially the young, tectonically unstable Himalayan range and uplifted plateau margins of the Western Ghats, plays a crucial role in landslide incidents.
  - **Example:** The 2013 Kedarnath disaster, resulting in over 5,000 deaths, exemplifies how fragile geological structures under stress contribute to landslides.
- **Climatic Influences:**

- Heavy rainfall, particularly during the monsoon season, triggers landslides by altering slope stability. Extreme weather events, intensified by climate change, are pivotal in triggering such disasters.
- **Example:** The Wayanad incident, where over 140 mm of rain fell within 24 hours, illustrates this vulnerability.
- **Seismic Activity:**
  - Tectonic movements, particularly in the Himalayan region, induce landslides. Earthquake-induced landslides are common in seismic zones.
  - **Example:** The 2021 landslides in Himachal Pradesh, triggered by heavy rains and tectonic activity, caused significant damage.
- **Human Activities:**
  - Anthropogenic factors like deforestation, unregulated construction, and quarrying destabilize slopes.
  - **Example:** The Char Dham road project in Uttarakhand, involving extensive hill cutting, significantly increased landslide risks.
- **Activities in Ecologically Sensitive Areas:**
  - The Madhav Gadgil-led Western Ghats Ecology Expert Panel (WGEEP) report of 2011 warned against activities in Ecologically Sensitive Areas (ESAs) recommending strict restrictions on quarrying and construction.
  - **Example:** Ignored warnings from the Madhav Gadgil report about regulating activities in Ecologically Sensitive Areas like Meppadi, where the recent Wayanad landslide occurred, have increased vulnerability due to continued quarrying and construction.
- **Forest Fires:**
  - Severe wildfires damage vegetation and soil structure, creating loose soil that increases runoff after intense rainfall or rapid snowmelt, heightening landslide risks.
  - **Example:** Increased soil erosion and landslide risks in the Western and Eastern Ghats due to forest fires.

### Mitigation Measures

- **Policy and Planning:** Implementing a preparedness-centric approach in disaster risk mitigation as a fundamental aspect of governance and development planning is crucial.
- **Research and Development:** Establishing a national center for landslide research to develop micro and meso-level zonation maps and maintaining a comprehensive landslide database would aid in precise risk assessment.

- **Budgetary Support:** Allocating specific funds for landslide management in the budgets of departments like Public Works and Disaster Management, especially in landslide-prone states, is essential.
- **Technological Advancements:** Enhancing forecasting and early warning systems through new investments and maintaining existing systems would help in timely dissemination of warnings.
- **Regulatory Frameworks:** Enforcing strict land-use policies and zoning regulations in landslide-prone areas and promoting eco-sensitive zones as suggested by the Madhav Gadgil report could prevent inappropriate land use.
- **Community Engagement:** Increasing community participation through education programs and collaborating with NGOs can enhance local resilience and preparedness.
- **International Cooperation:** Facilitating the exchange of best practices and advancements in landslide management between state governments, the National Disaster Management Authority (NDMA), and international bodies would enhance overall disaster resilience.

**Case study:**

In Gangtok, **Sikkim**, the use of **Interferometric Synthetic Aperture Radar (InSAR) for landslide monitoring** has enabled early detection and intervention, leading to the relocation of populations from high-risk areas and preventing potential casualties. This technological approach, combined with community relocation efforts and the analysis of rainfall patterns, has significantly enhanced landslide preparedness and mitigation in the region

Addressing India's vulnerability to landslides requires a multifaceted approach involving enhanced policy frameworks, scientific research, community engagement, and international cooperation. By integrating these measures into national disaster management strategies, India can significantly reduce the risks and impacts of future landslide events.

## 2. CRITICAL MINERALS

### IMPACT ANALYSIS

#### SYLLABUS:

GS 1 > Geography > Resource geography

#### REFERENCE NEWS:

- India's Budget 2024-25 announces the establishment of the **Critical Mineral Mission** to enhance domestic production and recycling of critical minerals, secure overseas mineral assets, and develop technology. The mission will also focus on cultivating a skilled workforce, implementing an extended producer responsibility framework, and establishing a robust financing mechanism.

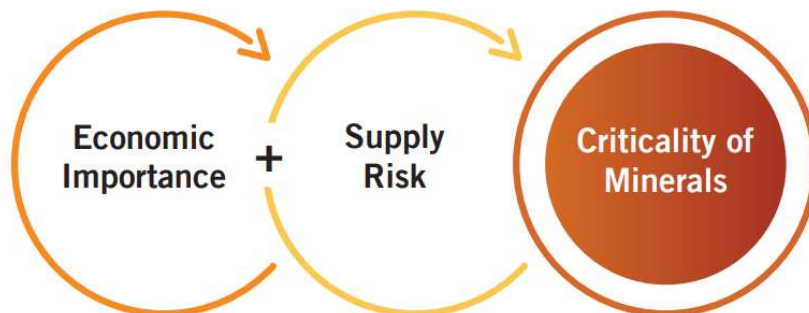
#### MORE ON NEWS:

- The Critical Mineral Mission is poised to play a crucial role in India's economic development by:
  - Reducing **import dependency** in strategically important minerals.
  - Enhancing the **global competitiveness** of India's mineral sector.
  - Supporting India's **energy transition goals** by securing supplies of critical minerals essential for renewable energy technologies.
- This initiative not only aims at economic benefits but also **strategically positions India in the global critical mineral market**, enhancing its bargaining power and security of supply chains.

#### CRITICAL MINERALS:

- Critical minerals are those minerals which **are essential for economic development and national security**, the lack of availability of these minerals or even concentration of existence, extraction or processing of these minerals in few geographical locations may lead to supply chain vulnerability and disruption.





- The Ministry of Mines constituted a seven-member Committee to identify the list of minerals critical to our country.
  - The critical minerals identification process tries to address five core objectives:



- Based on a **three-stage assessment process** and considering important parameters such as reserve position, production, import dependency, use for future technology/clean energy and requirement of fertilizer minerals in an agrarian economy, the Committee has identified a set of **30 critical minerals**.
- These are Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, Rare Earth Elements, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.
- These 30 minerals were **declared "critical" by the central government in July 2023**.

## SIGNIFICANCE OF CRITICAL MINERALS:

- **Economic development:**
    - The future global **economy will be underpinned by technologies that depend on minerals** such as lithium, graphite, cobalt, titanium, and rare earth elements. These minerals are essential for the advancement of many sectors, including high-tech electronics, telecommunications, transport, and defence.
    - For instance, critical minerals are crucial for India's **India Semiconductor Mission**, aimed at building self-reliance in semiconductor production, which is fundamental to modern electronics and IT infrastructure.
  - **National security:**
    - The lack of availability of these minerals or concentration of extraction or processing in a few geographical locations outside India can lead to **supply chain vulnerabilities**.
    - Identifying and developing value chains for the minerals can **reduce India's dependence on import** and promote mineral and energy security.
  - **Geostrategic significance:**
    - Covid pandemic exposed the limitations of global supply chain and countries are increasingly diversifying their supply chain through measures like the **China+1 strategy**. Having a credible source of critical mineral reserves can help India benefit from this diversification.
    - For instance, if the perceived size of the **Lithium reserves in J&K** is borne out by further exploration, India could jump ahead of China in the global Li supply chain.
- China+1 Strategy:**

  - Coined back in 2013, it is a **global business strategy in which companies avoid investing only in China and diversify their businesses to alternative destinations**.
  - Although such model was in place by Japan and the US since 2008, it furthered much more during the pandemic.
- **Support transition to net-zero carbon energy systems:**
    - Critical minerals are essential for the global shift towards a low carbon emissions economy and achieving '**Net Zero**' targets through renewable energy technologies.
    - For instance, critical minerals are essential for India's aggressive push towards **electric vehicle (EV) penetration**—30% in private cars, 70% in commercial vehicles, and 80% in two and three-wheelers by 2030. This aligns with India's commitment to achieving **Net Zero emissions by 2070**.
  - **Economic Diversification:**

- Critical minerals like lithium and cobalt can catalyze new industries such as **battery manufacturing and energy storage systems** in India. Diversifying into these high-tech sectors can **reduce reliance on traditional industries**, leading to a more robust and versatile economy.

### CHALLENGES:

- **Limited Domestic Reserves and Exploration:**
  - India, despite having a variety of mineral resources, often lacks substantial reserves in certain critical minerals.
  - For example, minerals like **lithium and cobalt**, which are crucial for **battery technology**, are not abundantly available in India.
- **Lack of Advanced Technology and Processing Facilities:**
  - Another challenge in India's mining and processing of critical minerals stems from a lack of advanced technology and processing facilities.
  - A prime example is the **difficulty in processing rare earth minerals from monazite sands in Kerala and Tamil Nadu**, where India struggles due to inadequate technological capabilities.
- **Dependence on Imports:**
  - Due to the lack of substantial domestic reserves for many critical minerals, India relies heavily on imports. This dependence on foreign sources for critical raw materials makes the country vulnerable to supply chain disruptions, geopolitical tensions, and fluctuating international market prices.
  - For instance, **China, which dominates the global rare earth market**, is a major source for these imports, **exposing India to geopolitical risks** and market fluctuations.
- **Environmental and Social Issues:**
  - Mining activities for critical minerals often lead to environmental and social issues.
  - For instance, **the extraction of ilmenite**, a mineral important for producing titanium, in **Tamil Nadu** has led to environmental degradation along the coastline. This includes beach erosion and damage to the coastal ecosystem, affecting the livelihoods of local fishing communities.

### Government initiatives:

- **MMDR Act:** Through an amendment in the Mines and Minerals (Development and Regulation) Act (MMDR Act) in August 2023, **24 minerals were notified as critical and strategic minerals**.
- **National Mineral Policy:** Updated in 2019, this policy also focuses on the exploration and exploitation of critical minerals, ensuring that India's mineral potential is tapped effectively.

- **Khanij Bidesh India Ltd (KABIL):** This is a joint venture between three state-owned companies — National Aluminium Company Ltd (NALCO), Hindustan Copper Ltd (HCL), and Mineral Exploration Corporation Ltd (MECL). KABIL's aim is to ensure a consistent supply of critical minerals and rare earth elements by acquiring and developing mineral assets overseas. It is exploring opportunities for lithium and cobalt in countries like Argentina, Australia, and Chile.
- **Research and Development:** The government supports R&D initiatives for the exploration, mining, processing, and recycling of critical minerals. **Indian Rare Earths Limited (IREL)**, a public sector unit, plays a significant role in the research and production of rare earth minerals.
- **Partnerships and Alliances:** India is actively seeking international partnerships to secure supplies of critical minerals. For example, it has engaged with countries like Australia for the supply of lithium and cobalt.
- **S&T-PRISM Initiative:** The Ministry of Mines in India is promoting innovation through the Science & Technology – Promoting Innovation in Minerals (S&T-PRISM) initiatives. This includes a focus on the extraction of strategic, critical, and rare earth elements at the elemental level.
- **Auction Success:** Out of **38 critical mineral blocks** put up for auction, **14 have been successfully auctioned**. This indicates a generally positive response from bidders, which the government considers satisfactory, thus suggesting no immediate need for further policy intervention.

#### WAY FORWARD:

- **Technological Advancements and International Collaboration:** Bridging the technology gap in mining and processing facilities is essential. India should foster domestic innovation and form strategic international partnerships and joint ventures to enhance its mining and processing capabilities.
- **Establishment of a National Institute for Critical Minerals:** Drawing inspiration from Australia's CSIRO, India could establish a Centre of Excellence for Critical Minerals (CECM) within the Ministry of Mines. This center would focus on pioneering research in discovering and extracting critical minerals using advanced geological knowledge, data analytics, modeling, and machine learning capabilities.

#### **Commonwealth Scientific and Industrial Research Organisation: (CSIRO):**

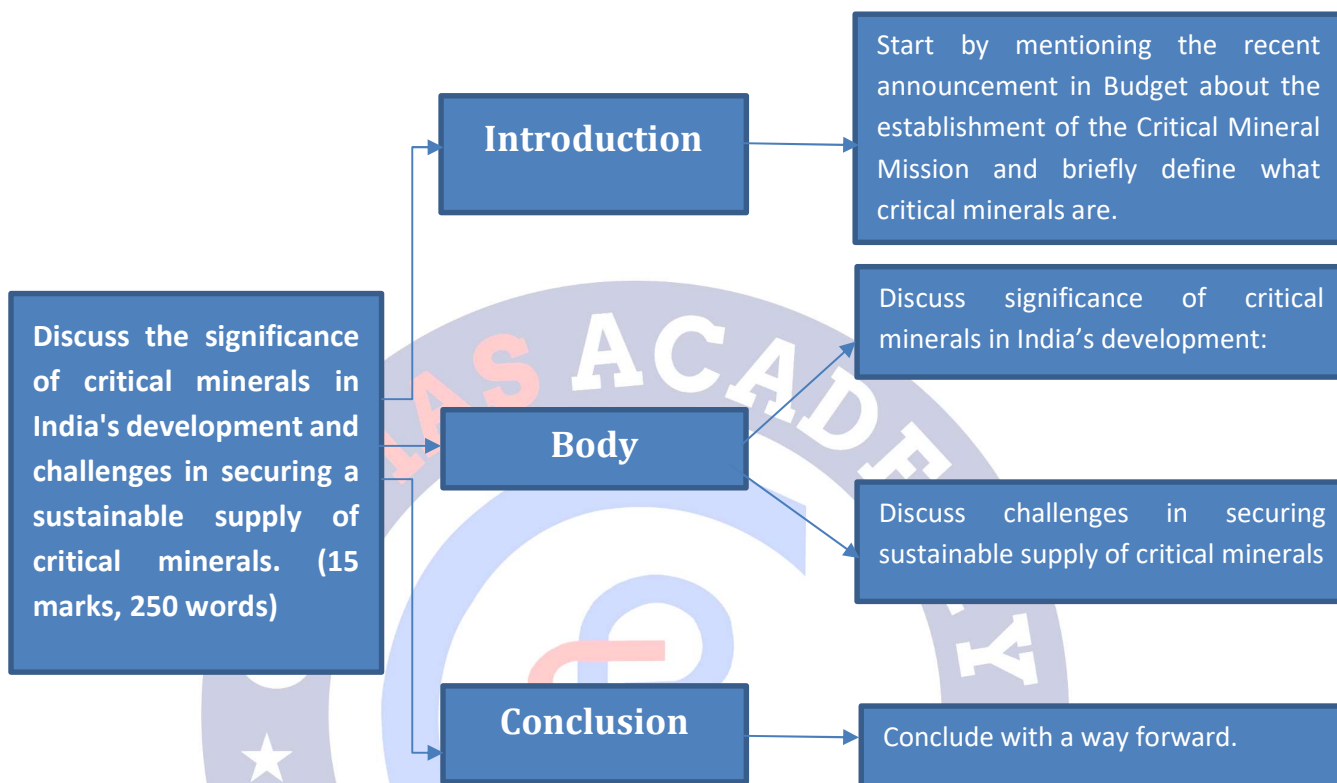
- CSIRO is an **Australian Government corporate entity** and one of the world's largest mission-driven multidisciplinary science and research organizations.
- But it is also the **largest minerals research and development organisation** in Australia and one of the largest in the world.

- **Supportive Policy Environment:** Creating a supportive policy environment is essential. This includes implementing clear regulations and providing incentives for exploration, processing activities, and investments in the critical minerals sector. Policies should encourage both domestic and foreign investment to bolster the entire mineral value chain.
- **Economic and Industrial Policy Alignment:** Strategic policy interventions, such as exemptions from customs duties on critical minerals, should be implemented to reduce import dependency and stimulate domestic production. For instance, the budget 24-25 has removed import duties on copper concentrate, which is expected to increase the competitiveness of domestic refiners by reducing costs and dependency on imports.
- **Enhanced Research and Development (R&D) Focus:** Strengthening R&D capabilities is vital for innovation in the extraction and processing of critical minerals. Initiatives like the S&T-PRISM should be expanded to bridge the gap between development and commercialization, providing necessary funding and mentorship to startups and MSMEs engaged in innovative mining technologies.
- **Engagement in Bilateral and Plurilateral Agreements:** India must actively engage in bilateral and plurilateral arrangements to build assured and resilient critical mineral supply chains. This would help mitigate risks associated with geopolitical tensions and market fluctuations, ensuring a steady supply of essential minerals.

## PRACTICE QUESTION

**Q. Discuss the significance of critical minerals in India's development and challenges in securing a sustainable supply of critical minerals. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

The recent announcement in India's Budget 2024-25 about the establishment of the **Critical Mineral Mission** marks a strategic move towards enhancing the country's self-reliance in critical minerals. Critical minerals are vital for economic development and national security, and their availability in limited locations can create significant supply chain vulnerabilities. For example, **lithium and cobalt**, crucial for battery production, are primarily found in countries like Congo and China, exposing global markets to geopolitical risks and supply disruptions.

### Significance of Critical Minerals in India's Development:

- **Technological and Economic Growth:** Minerals like lithium, graphite, and cobalt are critical to sectors such as electronics and telecommunications. For instance, these minerals are essential for the India Semiconductor Mission, aiming for self-reliance in semiconductor production.
- **Security and Supply Chain Stability:** The scarcity of minerals like lithium heightens supply chain risks, especially when extraction is concentrated in specific global regions.

Developing domestic sources and value chains enhances India's energy security and reduces import dependence.

- **Strategic Diversification:** The COVID-19 pandemic underlined the risks of over-reliance on single sources like China. India's exploration of lithium in Jammu and Kashmir could potentially place it ahead in the global lithium market if reserves are confirmed.
- **Environmental Commitments:** Critical minerals support India's transition to a low-carbon economy, crucial for achieving 'Net Zero' targets by 2070. Minerals are pivotal for the projected growth in electric vehicles, aiming for substantial market penetration by 2030.
- **Industrial Diversification:** Access to critical minerals can foster new high-tech industries, such as battery manufacturing, lessening dependence on traditional sectors and promoting a versatile economy.

### Challenges in Securing Sustainable Supply of Critical Minerals in India

- **Limited Domestic Reserves:** India has minimal reserves of crucial minerals like lithium and cobalt, essential for modern battery technologies, including those used in electric vehicles.
- **Dependency on Imports:** India's heavy reliance on China for rare earth minerals exposes it to risks of supply chain disruptions during geopolitical tensions or trade disputes, affecting industries from electronics to defense.
- **Technological Gaps:** Despite having resources like monazite sands in Kerala and Tamil Nadu, India faces technological challenges in processing these efficiently, limiting their use in high-tech applications such as permanent magnets for wind turbines and EV motors.
- **Environmental and Social Impacts:** Mining in regions like Odisha and Jharkhand has caused environmental degradation and social unrest, affecting ecosystems, causing deforestation, soil erosion, water contamination, and impacting local livelihoods dependent on natural resources.
- **Regulatory Hurdles:** India's complex regulatory environment can impede the exploration and extraction of minerals, delaying projects and deterring potential investments in the mining sector. This challenge is compounded by lengthy approval processes and regulatory uncertainties that affect the overall efficiency and competitiveness of the mineral extraction industry.

### Way Forward

- **Enhance Public-Private Partnerships:** Foster collaborations that combine governmental oversight with private sector innovation and efficiency.
- **Advance Technological Capabilities:** Invest in the development and deployment of cutting-edge mining and recycling technologies.

- **Strengthen Recycling Processes:** Develop more comprehensive recycling systems to reduce dependency on raw mineral extraction and minimize environmental impact.
- **Regulatory Enhancements:** Streamline regulations to encourage sustainable mining practices and ensure protection for local ecosystems and communities.

India's strategic focus on securing sustainable critical mineral supplies is underscored by significant government efforts. Key initiatives like the amendment to the **Mines and Minerals (Development and Regulation) Act**, the creation of **Khanij Bidesh India Ltd (KABIL)**, and the **S&T-PRISM program** have substantially enhanced national mineral security. As India progresses, it is crucial to maintain and improve these initiatives. Continued emphasis on these policies will not only meet domestic needs but also position India as a leader in global mineral resource management, supporting long-term economic and environmental goals.





## 3. WOMEN'S SAFETY IN INDIA

### IMPACT ANALYSIS

#### SYLLABUS:

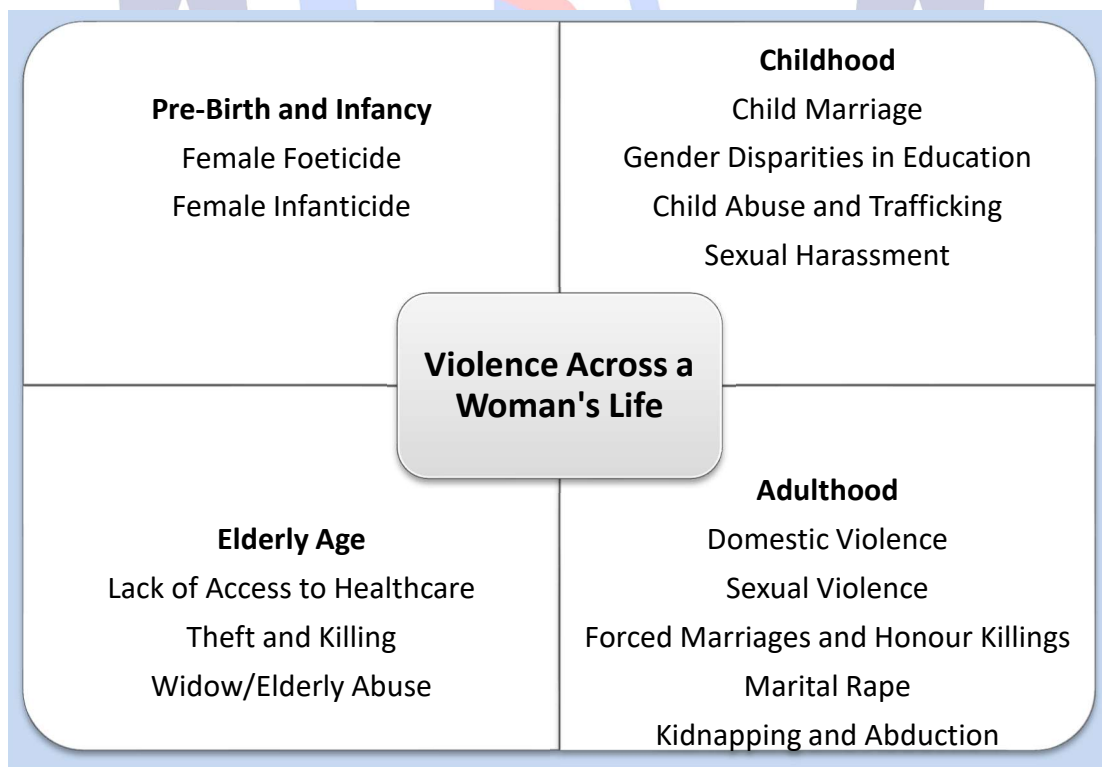
GS 1 > Society > Women and Child issues

#### REFERENCE NEWS:

- The tragic rape and murder of a resident doctor at RG Kar Hospital in Kolkata is indeed a grim reminder of the ongoing challenges related to the safety of women in India. Such horrifying incidents rekindle crucial discussions about the need for more robust safety measures, the enforcement of stringent legal actions, and essential societal shifts to secure and respect women's lives.

#### WOMEN'S SAFETY IN INDIA

- Women in India face various safety issues, including sexual harassment and assault in workplaces and public spaces, domestic violence, human trafficking, cybercrime, honor-based violence, and challenges related to inadequate infrastructure and societal norms.



### STATS:

- The latest **National Crime Records Bureau (NCRB)** data for 2022 reveals a concerning rise in crimes against women in India, with a **4% increase** compared to 2021. The total number of crimes against women recorded in 2022 was 4,45,256 cases, which translates to approximately **51 cases every hour**.
- Major categories of crimes include **cruelty by husbands or relatives**, accounting for **31.4%** of the cases, followed by kidnapping and abduction, and assaults intended to outrage modesty. The states with the highest number of reported cases were Uttar Pradesh, Maharashtra, and Rajasthan.
- **Cybercrimes against women** also saw a notable increase of **11% in 2022**, particularly cases involving the publication or transmission of sexually explicit material. Additionally, incidents of dowry deaths remained alarmingly high, with over 6,450 cases reported.

### CAUSES OF WOMEN'S SAFETY ISSUES IN INDIA

- **Patriarchal Norms and Cultural Attitudes:**
  - Deep-rooted patriarchal beliefs in India perpetuate the notion that men hold dominance over women, leading to gender-based violence. These cultural norms often normalize domestic abuse and sexual harassment.
  - According to the **National Family Health Survey (NFHS-5)**, around **30% of women aged 15-49** have experienced physical or sexual violence from their partners.
- **Inadequate Public Infrastructure:**
  - Insufficient safety measures in public spaces, such as **poorly lit streets and lack of safe public transportation**, increase the vulnerability of women to crimes.
  - For example, the infamous **2012 Nirbhaya case in Delhi** occurred in a poorly monitored public bus, highlighting the dangers women face in public transport.
- **Weak Law Enforcement and Delayed Justice:**
  - Despite having laws such as the Protection of Women from Domestic Violence Act, 2005, and amendments to the POCSO Act, poor implementation and delays in the judicial process contribute to women's safety issues.
  - For example, the **lack of fast-track courts and overburdened judicial systems** result in delays, allowing perpetrators to evade justice. The Telangana rape case, where the **accused were killed in an encounter**, highlights the frustration with the slow judicial process.
- **Economic Dependency:**
  - Economic dependence on male family members limits women's ability to leave abusive situations and makes them more vulnerable to exploitation.

- For example, women who are financially dependent may endure domestic abuse because they lack the financial resources to live independently.
- **Cybercrime and Online Harassment:**
  - The rapid expansion of internet access has led to an increase in **online harassment, cyberstalking**, and other forms of digital violence against women. For example, women often face cyberbullying, threats, and non-consensual sharing of private images, making cyberspace unsafe.
  - For instance, according to **NCRB data**, cybercrimes against women also saw a notable increase of **11% in 2022**.
- **Under-reporting of Crimes:**
  - Cultural stigmas, fear of retaliation, and societal pressure often deter women from reporting crimes, exacerbating their safety issues. The NCRB estimates that many cases of sexual violence go unreported due to societal pressures and fear of shaming.
  - For example, during the **#MeToo movement**, many women shared their stories of **harassment long after the incidents occurred**, highlighting the fear of reporting.
- **Extrajudicial Bodies and Vigilante Justice:**
  - The persistence of illegal **khap panchayats** and growing instances of vigilante justice undermine the rule of law and women's safety, particularly in rural areas.
  - For example, khap panchayats in some regions have **sanctioned honor killings**, where women are murdered for perceived dishonor to the family.
- **Public Perception and Stigma:**
  - Reporting assaults often brings stigma to the victim rather than the perpetrator, as society tends to question the victim's behavior. This discourages many from coming forward.
  - Victims of sexual assault may **face societal blame and ostracization**, leading to under-reporting of crimes.

### MEASURES FOR PROTECTION OF WOMEN:

#### Constitutional Provisions

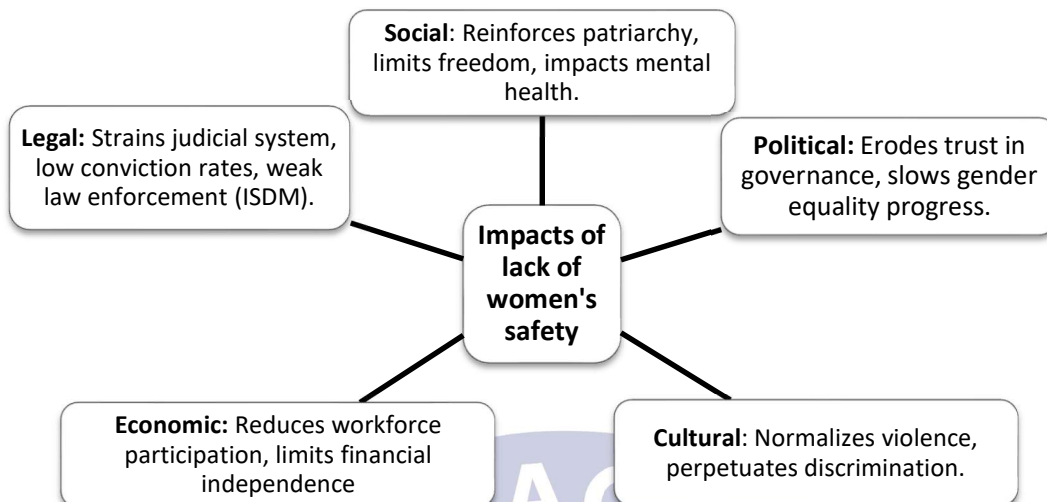
- **Article 14:** Equality before the law for women.
- **Article 15(3):** State can make special provisions for women and children.
- **Article 39A:** Ensures equal opportunity and free legal aid.
- **Article 42:** Secures humane work conditions and maternity relief.
- **Article 51(A)(e):** Promotes harmony and renounces practices derogatory to women's dignity.

### Legislative Provisions

- **Protection of Children from Sexual Offences (POCSO) Act, 2012:** Protects children from sexual offenses, ensures child-friendly investigation and trial processes, and provides for Special Courts.
- **Prohibition of Child Marriage Act, 2006:** Prevents child marriages and ensures legal action against perpetrators.
- **Juvenile Justice (Care and Protection of Children) Act, 2015:** Provides legal protection for children in conflict with the law and those in need of care and protection.
- **Indecent Representation of Women (Prohibition) Act, 1986:** Prevents objectification of women in advertisements, publications, and other forms of media.
- **Dowry Prohibition Act, 1961:** Criminalizes the demand for dowry.
- **Protection of Women from Domestic Violence Act, 2005:** Provides protection and legal recourse for women facing domestic violence.

### Policy Initiatives

- **Vishaka Guidelines:** Initially provided procedural guidelines for sexual harassment at the workplace, later superseded by the **Sexual Harassment of Women at Workplace Act, 2013.**
- **Nirbhaya Fund:** Established to enhance the safety of women through various initiatives.
- **Beti Bachao, Beti Padhao:** Aims to address the declining child sex ratio and empower girls.
- **SABLA & SAKSHAM:** Programs aimed at the holistic development of adolescent boys and girls.
- **Ujjawala Scheme:** Focuses on preventing trafficking, rescue, rehabilitation, and reintegration of victims.
- **Swadhar Greh Scheme:** Provides shelter and rehabilitation for women in difficult circumstances.
- **Investigation Tracking System for Sexual Offenses:** Monitors and tracks time-bound investigations in sexual assault cases as per the 2018 amendments.
- **National Database on Sexual Offenders (NDSO):** Facilitates investigation and tracking of sexual offenders by law enforcement.
- **Cybercrime Portal:** Allows reporting of obscene content and includes cyber forensic labs in various states.
- **One Stop Centers:** Provides integrated support for women affected by violence.
- **Universalization of Women Helpline:** Offers 24-hour emergency and non-emergency response for women impacted by violence.



### **WAY FORWARD:**

- **Effective Implementation:** Ensure stringent enforcement of laws like the POCSO Act and the Domestic Violence Act. For instance, the establishment of fast-track courts in Uttar Pradesh following the 2019 Unnao case has expedited the legal process in similar cases.
- **Accountability:** Regular gender-sensitivity training for police, as implemented in Delhi after the Nirbhaya case, should be expanded nationwide. Monitoring bodies can help track police performance in handling women's safety cases.
- **Safe Public Spaces:** Cities like Bengaluru have increased street lighting and CCTV surveillance in response to rising harassment cases. Similar initiatives should be expanded to other cities, especially in high-risk areas.
- **Technology-Driven Solutions:** The implementation of panic buttons in buses in cities like Mumbai is a positive step. Expanding such measures to all public transport systems can further enhance safety.
- **Financial Independence:** Programs like the **Pradhan Mantri Mudra Yojana** have successfully provided loans to women entrepreneurs, with 70% of beneficiaries being women. Expanding access to such programs can empower more women financially.
- **Equal Opportunities:** Enforcement of workplace policies through initiatives like the **POSH Act** (Prevention of Sexual Harassment Act) needs to be strengthened. Companies that have effectively implemented POSH committees, like TCS, serve as good models.
- **Education and Campaigns:** The **Beti Bachao, Beti Padhao** campaign has been instrumental in changing perceptions about girls' education and safety. Expanding this campaign to focus on preventing gender-based violence can further its impact.
- **Engaging Men and Boys:** Initiatives like the "**HeForShe**" movement, which involves men in gender equality efforts, should be promoted at the grassroots level to challenge harmful norms.

- **Accessible Services:** The **One Stop Centers (OSCs)** across India have provided support to over 8 lakh women. Expanding OSCs and ensuring they are well-resourced can further support victims of violence.
- **Victim Protection:** Programs like **Witness Protection Scheme** implemented in states like Maharashtra provide a model for ensuring the safety of women who report crimes.
- **Enhanced Reporting and Research:** Encouraging accurate crime reporting by implementing anonymous reporting mechanisms, similar to those used during the #MeToo movement, can help uncover hidden cases.
- **Tracking and Monitoring:** The **National Database on Sexual Offenders (NDSO)** has been a valuable tool for law enforcement to track repeat offenders. Its usage should be expanded across all states.
- **Community Involvement:** Grassroots initiatives like **Jagori** in Delhi have been successful in raising awareness about women's safety through workshops and community programs. Expanding similar initiatives across India can enhance public engagement.

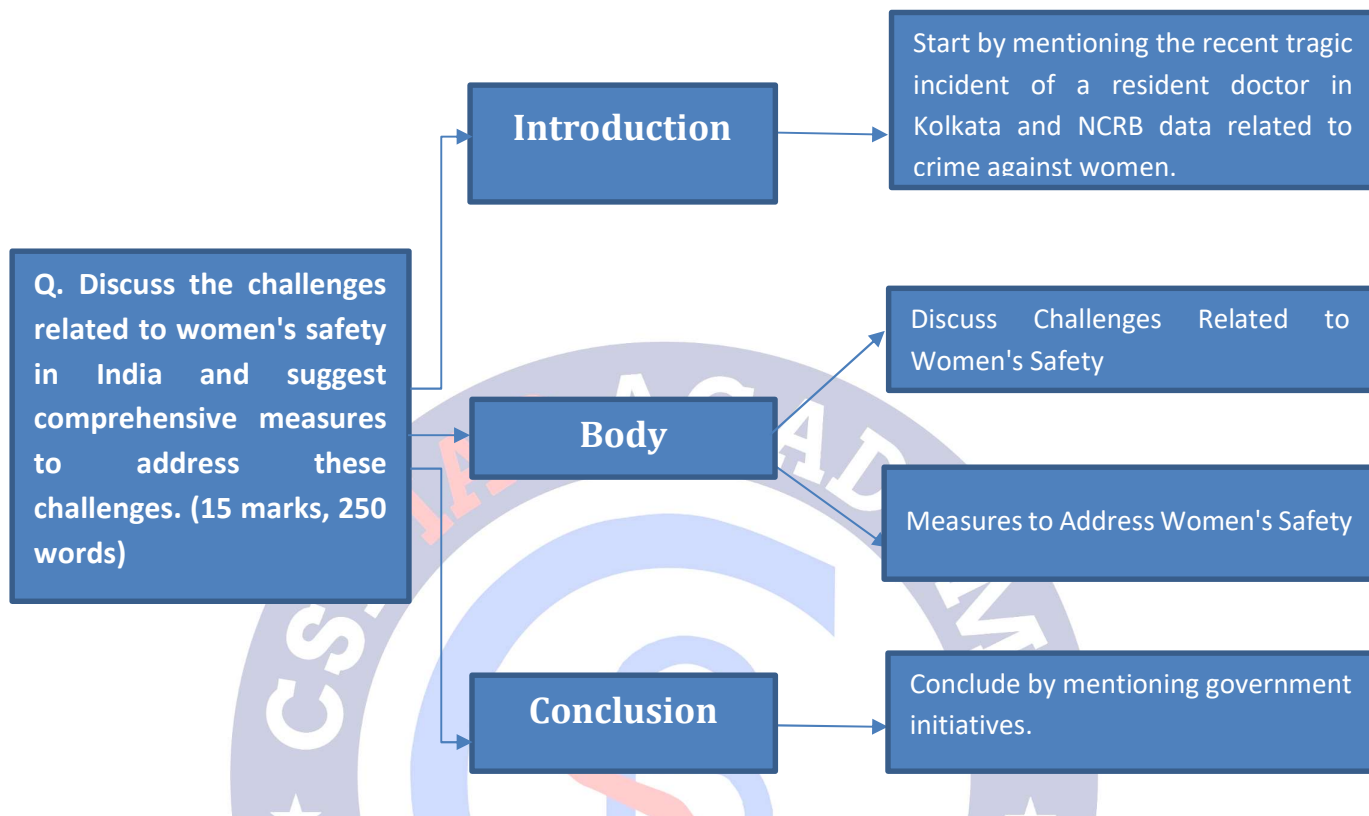
#### **CONCLUSION:**

- Women's safety in India is a pressing issue, with rising crime rates highlighting the need for stronger enforcement and societal change. While legal and policy measures exist, their success depends on effective implementation, improved infrastructure, and community involvement. A comprehensive approach is essential to ensure a safer environment for women across the country.

### **PRACTICE QUESTION**

**Q. Discuss the challenges related to women's safety in India and suggest comprehensive measures to address these challenges. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

The tragic rape and murder of a resident doctor at RG Kar Hospital in Kolkata underscore the persistent safety challenges faced by women in India. The **2022 National Crime Records Bureau (NCRB) data** highlights a **4% increase** in crimes against women compared to 2021, with 4,45,256 cases reported—translating to **51 cases every hour**. This alarming rise in crimes against women underscores the urgent need for more robust safety measures, legal reforms, and societal shifts to ensure women's safety and dignity.

### Challenges Related to Women's Safety

- **Deep-rooted Patriarchy:** Indian society is deeply entrenched in patriarchal values, which often normalize gender-based violence. For instance, the National Family Health Survey (NFHS-5) reveals that around 30% of women aged 15-49 have experienced physical or sexual violence from their partners.
- **Unsafe Public Spaces:** Poor infrastructure, such as poorly lit streets and unsafe public transportation, increases the vulnerability of women. The infamous 2012 Nirbhaya case

in Delhi, where a woman was assaulted on a public bus, is a stark reminder of the dangers women face in public spaces.

- **Implementation Gaps:** Despite having laws like the Protection of Women from Domestic Violence Act, poor implementation continues to hinder women's safety. For example, the lack of fast-track courts and an overburdened judiciary often delay justice, as seen in the Telangana rape case where the slow legal process led to frustration and vigilante justice.
- **Vulnerability to Exploitation:** Economic dependency on male family members limits women's ability to leave abusive situations. Women who are financially dependent may endure domestic abuse due to a lack of resources for independent living.
- **Digital Violence:** With the rapid expansion of internet access, online harassment has surged. NCRB data from 2022 indicates an 11% increase in cybercrimes against women, highlighting the growing threat of cyberstalking, bullying, and non-consensual sharing of private images.
- **Societal Stigma:** Cultural stigmas and fear of retaliation deter many women from reporting crimes, exacerbating their safety issues. The NCRB estimates that many cases of sexual violence go unreported due to societal pressures and fear of shaming.
- **Khap Panchayats:** In rural areas, illegal khap panchayats continue to sanction honor killings and undermine women's safety. These extrajudicial bodies often conflict with the rule of law and perpetuate gender-based violence.

### Measures to Address Women's Safety

- **Strengthening Enforcement:** Laws like the POCSO Act and Domestic Violence Act must be enforced more stringently. The establishment of fast-track courts in Uttar Pradesh after the Unnao case is a positive step that should be replicated nationwide.
- **Safe Public Spaces:** Cities like Bengaluru have enhanced street lighting and CCTV surveillance in response to rising harassment cases. Expanding such measures to other cities, especially high-risk areas, is essential for women's safety.
- **Financial Independence:** Programs like Pradhan Mantri Mudra Yojana have successfully provided loans to women entrepreneurs, with 70% of beneficiaries being women. Expanding access to such programs can help reduce women's economic dependence and vulnerability to exploitation.

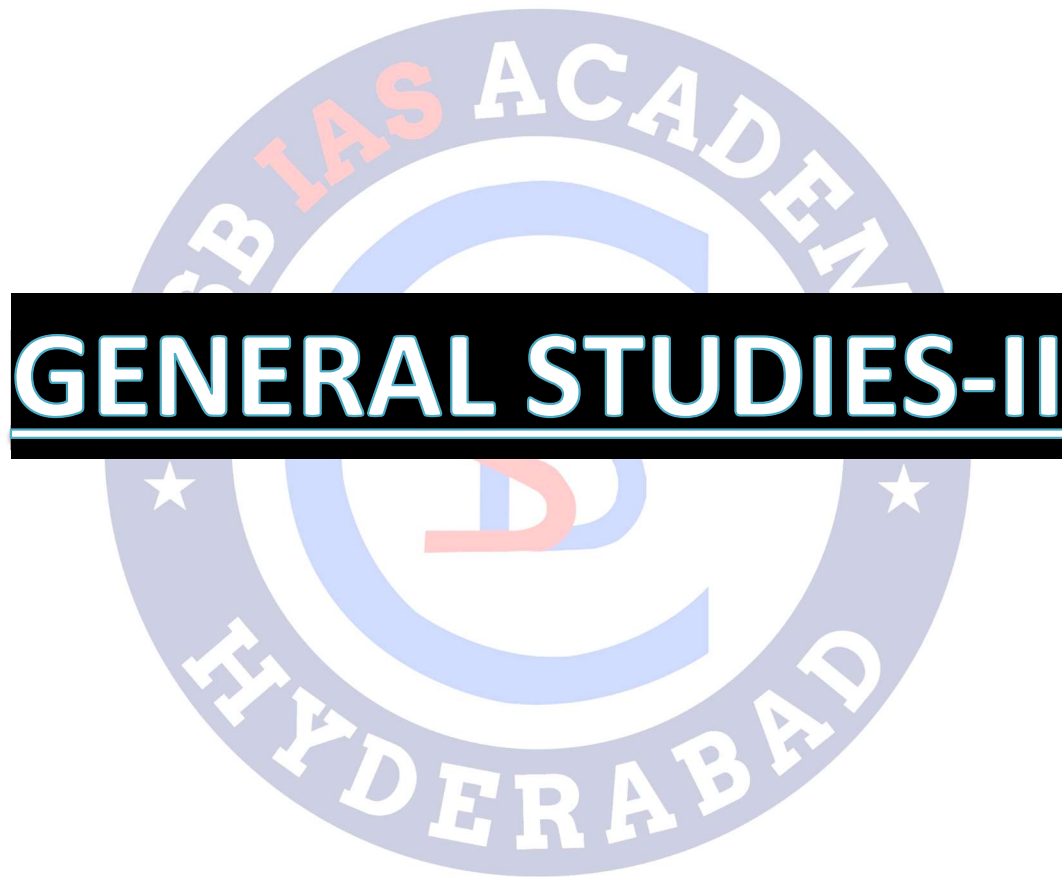


- **Campaigns and Initiatives:** The Beti Bachao, Beti Padhao campaign has been instrumental in changing perceptions about girls' education and safety. Expanding this campaign to focus on preventing gender-based violence can further its impact.
- **Accessible Services:** One Stop Centers (OSCs) across India have provided support to over 8 lakh women. Expanding OSCs and ensuring they are well-resourced can offer better support to victims of violence.
- **Victim Protection:** Programs like the Witness Protection Scheme in Maharashtra provide models for ensuring the safety of women who report crimes.

**Government Initiatives:**

- Nirbhaya Fund
- Beti Bachao, Beti Padhao
- One Stop Centers (OSCs)
- Pradhan Mantri Mudra Yojana
- Investigation Tracking System for Sexual Offenses
- National Database on Sexual Offenders (NDSO)
- Swadhar Greh Scheme
- Ujjawala Scheme

Addressing women's safety in India requires a comprehensive approach involving legal reforms, infrastructure improvements, economic empowerment, and societal change. Government initiatives like the Nirbhaya Fund, One Stop Centers, and the National Database on Sexual Offenders are essential steps toward ensuring women's safety. However, sustained efforts and community involvement are crucial to creating an environment where women can live without fear and participate fully in society.



## 4. LATERAL ENTRY INTO BUREAUCRACY

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Governance > Role of Civil Services in a Democracy > Importance of Civil Services

#### REFERENCE NEWS:

- Recently, the Union Public Service Commission (UPSC) issued an advertisement seeking applications for 45 senior positions through lateral recruitment. These positions included Joint Secretary, Director, and Deputy Secretary across 24 ministries of the Union government.
- However, the Department of Personnel and Training (DoPT) has directed UPSC to cancel this advertisement as part of a reassessment of the lateral entry process. The decision underscores the government's emphasis on aligning the process with principles of equity and social justice, particularly concerning reservations for marginalized communities.
- The lateral entry policy has faced significant criticism, particularly for its exclusion of reservations for Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC).

#### LATERAL ENTRY IN INDIA:

- Lateral entry into the Indian bureaucracy refers to the recruitment of **professionals from outside traditional government service** cadres to fill **mid and senior-level positions**.
- This practice aims to bring **specialized knowledge and expertise** into government roles, addressing complex governance challenges that may not be adequately met by career bureaucrats.
- Lateral entry was formally introduced during Prime Minister Narendra Modi's tenure, with the first set of vacancies **announced in 2018**.
- Candidates are typically **hired on contracts ranging from three to five years**, with the possibility of extensions based on performance.
- These 'lateral entrants' will be part of the **central secretariat** which, in the normal course, has only career bureaucrats from the All India and Central Civil Services.
- A total of 63 appointments have been made through lateral entry by the government in the last five years. Out of these, 57 officers are currently holding positions in various ministries and departments.

### HISTORICAL BACKGROUND:

- In the past too, experts were inducted at senior positions into the government through lateral entry. Eg: The appointment of **Dr. Manmohan Singh** as RBI Governor in 1982.
- Scientific ministries, such as space or atomic energy, are less hierarchically organized and have allowed lateral entry of professionals more liberally.
- The **Surinder Nath Committee (2003)** and the **Hota Committee (2004)** both supported the idea of lateral entry into the civil services. These committees recognized the need to bring in specialized expertise from outside the traditional civil service structure to enhance governance efficiency and address emerging challenges .
- In 2005, the **Second Administrative Reforms Commission** recommended an institutionalized, transparent process for lateral entry at both the Central and state levels.
- In February 2017, both the **NITI Aayog** and the **sectoral group of secretaries** on governance have recommended induction of personnel in the middle and senior management level in the government.

### RATIONALE BEHIND LATERAL ENTRY:

- **Bridge vacancies:**
  - The vacancy in civil services is huge, primarily because India reduced hiring of IAS officers post liberalization. Currently, there is a shortage of **22% or 1,449 officers for the IAS cadre alone**, according to official data from the Department of Personnel and Training. Lateral entry can help meet this shortfall.
- **Brings in expertise:**
  - IAS officers lack the necessary domain knowledge, particularly in subjects like civil aviation, defence, and shipping etc. Lateral entry can help bring in subject expertise and thus enhance bureaucratic productivity.
- **Participatory Governance:**
  - Lateral entry also aims to promote participatory governance by providing opportunities for the **private sector, NGOs, and other non-governmental stakeholders** to contribute directly to the governance process. This approach ensures that the government benefits from a **wide range of perspectives**, enhancing the inclusivity and effectiveness of its policies
- **Enhances work culture:**
  - Due to job security and lack of incentives for specialization, the 'Permanent executive' in India is increasingly becoming redundant and inefficient. Lateral

entry can help in bringing the values of economy, efficiency and effectiveness into this situation.

- **Break politician-bureaucratic nexus:**
  - As cited by the **Vohra committee**, the nexus between the bureaucracy and politicians has come out clearly in various parts of the country. Also, the Indian bureaucracy is a powerful lobby within the governance system, which has resulted in being corrupt and inefficient. Lateral entry can help break this nexus.
- **Aligns with contemporary trends:**
  - The generalist Civil Services was designed for a time when the State was all-powerful. After the **1991 liberalization**, markets are playing critical role in administration. Hence it makes more sense to make lateral entry from private sector.
- **Global Best Practices:**
  - Lateral entry is a common practice in countries like the United States and the UK, where it is institutionalized as part of their governance systems. In the UK, officers are often selected based on experience in both civil and private sectors, showcasing the effectiveness of this approach in enhancing governance.
- **Addressing Central-Level Shortages**
  - The **Baswan Committee (2016)** noted that large states like Bihar, Madhya Pradesh, and Rajasthan are reluctant to send officers for central deputation due to local shortages. Lateral entry can alleviate this issue by bringing in experienced professionals to supplement the central workforce.
- **Does not affect career prospects:**
  - Lateral entry recruitments are **nominal compared to the total strength** of the civil services. So, lateral entry would not cause much insecurity in the minds of the directly recruited career bureaucrats that it would minimize their scope for promotion.

### CONCERNS:

- **Selection process:**
  - The current mode of evaluation of lateral entry candidates does not inspire confidence about its fairness and transparency.
    - The criteria laid out in the advertisement were broad-based.
    - It is highly doubtful if the domain expertise and aptitude of the potential candidates can be assessed properly through an examination or interview lasting a few minutes.
- **Conflicting organizational value:**

- The basic objective of Private sector is **profit oriented** while that of the government is **public service**. Hence, the entrants need to be undergone a fundamental transition, which is difficult given their short-term contract.
- **Potential conflict of interest:**
  - Through lateral entry, Individuals who **worked in corporate houses** are put to the seat of power from where they can formulate norms and controls. After the government stint, they will **go back to the industry** and enjoy those same rules that they formulated. Thus, their impartiality may be questioned.
- **Bypasses reservations:**
  - The lateral entry system does not provide for reservation in these appointments for SCs, STs and OBCs. The DoPT's stance is that since each lateral entry position is **considered a "single post,"** it falls outside the purview of the **13-point roster system** that governs reservations in public jobs.
- **Limited Familiarity and Short Tenure**
  - Lateral entrants, while hired for their subject expertise, often lack deep **familiarity with bureaucratic processes** that career civil servants gain through 10-15 years of on-ground experience. Additionally, their short contractual tenure (typically three to five years) makes it challenging for them **to fully integrate into the system** and deliver optimal results within the limited time frame.
- **Internal resistance:**
  - It will be difficult for a handful of lateral entrants hired on a contractual basis to make any real interventions in governance when the system continues to be dominated by the traditional IAS officers.

### WAY FORWARD:

Recruiting from the open market through lateral entry is a step forward, but it alone cannot professionalize the civil service. A comprehensive approach that includes reforms to enhance the existing cadre of officers is essential. This includes:

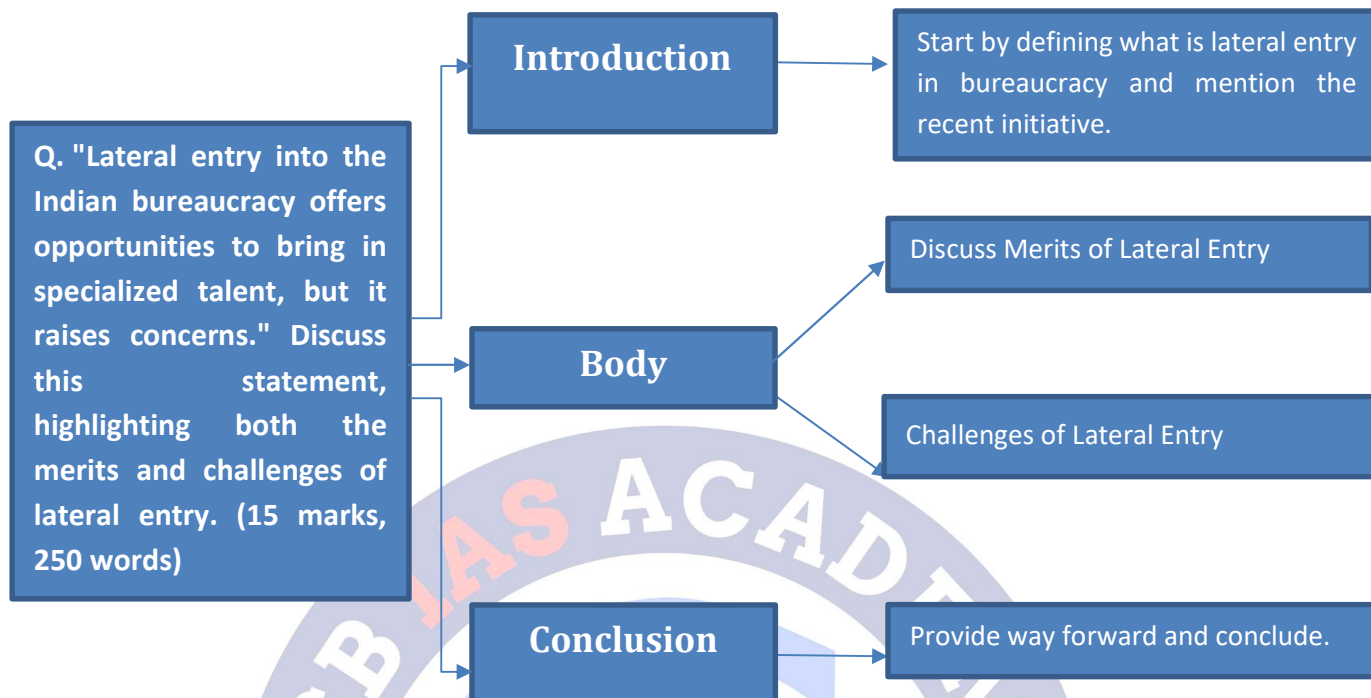
- **Promoting Internal Specialization:** Governments should incentivize civil servants to develop expertise in specific sectors. For example, IAS officers should be encouraged to specialize in one or two chosen fields by offering them long tenures and opportunities to join academic or research organizations, where they can enhance their skills.
- **Ensuring Tenure Security:** Providing civil servants with minimum tenure security is crucial to prevent them from succumbing to political pressure. This reform can help reduce the entrenched nexus between bureaucracy and politicians, ensuring more independent and effective governance.

- **Performance Review Mechanism:** Implementing a comprehensive performance evaluation system is necessary to identify underperforming officers and promote accountability. This mechanism would ensure that only competent officers are entrusted with important responsibilities.
- **Rationalization of Services:** Currently, over 60 separate civil services exist at the central and state levels, leading to inefficiencies. There is a need to reduce this number and ensure uniformity across the system to streamline governance and resource allocation.
- **Institutionalize Lateral Entry:** Lateral entry should not be ad hoc but should be institutionalized to ensure consistency and prevent misuse. A transparent and merit-based recruitment process, overseen by bodies like the UPSC, should be established to incorporate external talent into the civil services effectively.
- **Transparent Selection Process:** To maintain integrity, the lateral entry selection process must be transparent and merit-based, focusing on relevant expertise and avoiding favoritism or bias. The Administrative Reforms Committee recommended establishing the "Central Civil Services Authority," an autonomous body to supervise the lateral entry recruitment process and prevent the potential back door entry and politically-aligned appointments.
- **Gradual Integration:** New lateral entrants should be gradually integrated into the system, paired with experienced civil servants as mentors to help them navigate the bureaucracy effectively.
- **Clear Role Definition:** Clearly defined roles, responsibilities, and performance indicators should be established for lateral entrants to align their contributions with organizational goals and ensure accountability.
- **Complement Lateral Entry with Lateral Exit:** Civil servants should be encouraged to work in various sectors for a short period of time in order to broaden their skills and improve their morale and productivity.

## PRACTICE QUESTION

Q. "Lateral entry into the Indian bureaucracy offers opportunities to bring in specialized talent, but it raises concerns." Discuss this statement, highlighting both the merits and challenges of lateral entry. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Lateral entry refers to recruiting professionals from outside the traditional civil service to fill senior government positions, bringing in specialized expertise. Recently, the UPSC advertised 45 such positions, but the DoPT canceled the process to reassess it, focusing on aligning it with equity and social justice, particularly regarding reservations for marginalized communities. While lateral entry helps bridge vacancies and brings in expertise, it also faces challenges and concerns.

### Merits of Lateral Entry

- **Bridging Vacancies:** As per the latest data from the Department of Personnel and Training (DoPT), the Indian Administrative Service (IAS) alone faces a shortage of approximately 1,449 officers, reflecting a 22% vacancy rate. Lateral entry can help address this shortfall by bringing in experienced professionals from various fields, ensuring that crucial positions are filled and governance is not hampered.
- **Bringing in Expertise:** Traditional IAS officers may lack domain-specific knowledge in sectors such as civil aviation, defense, and digital technologies. Lateral entrants can fill these gaps, enhancing the overall efficiency and effectiveness of the bureaucracy by introducing specialized knowledge and new perspectives.
- **Participatory Governance:** Lateral entry opens the doors for private sector professionals, NGOs, and other stakeholders to contribute to governance. This participatory approach



ensures a wider range of perspectives in policy-making, leading to more inclusive and effective governance.

- **Enhancing Work Culture:** Lateral entry can introduce a culture of performance-based accountability, as professionals from the private sector often bring with them values of efficiency and effectiveness. This can help rejuvenate the work culture within the bureaucracy, making it more dynamic and results-oriented.
- **Break Politician-Bureaucratic Nexus:** The Vohra Committee highlighted the nexus between politicians and bureaucrats, contributing to corruption and inefficiency. Lateral entry can help disrupt this entrenched relationship by introducing fresh, independent professionals.
- **Aligns with Contemporary Trends:** Post-1991 liberalization, markets play a critical role in administration, making it more relevant to bring in expertise from the private sector through lateral entry, rather than relying solely on generalist civil servants.
- **Aligning with Global Best Practices:** Countries like the United States and the UK have institutionalized lateral entry as part of their governance systems. By adopting a similar approach, India can modernize its bureaucracy and make it more responsive to contemporary challenges.

### Challenges of Lateral Entry

- **Lack of Familiarity with Bureaucratic Processes:** Lateral entrants, though experts in their fields, often lack the deep understanding of bureaucratic procedures that career civil servants gain through years of experience. This can hinder their ability to navigate the system effectively within their short tenure of three to five years.
- **Short Tenure and Impact:** The limited tenure of lateral entrants makes it difficult for them to assimilate fully into the bureaucratic structure and deliver optimal results. Unlike career civil servants, who have long-term engagements, lateral entrants may struggle to make a lasting impact.
- **Potential Conflict of Interest:** Professionals from the private sector may face conflicts of interest, especially if they return to the industry after their government stint. Their impartiality could be questioned, particularly if they were involved in formulating policies that benefit their previous or future employers.
- **Bypassing Reservations:** One of the major criticisms of lateral entry is the exclusion of reservations for marginalized communities such as SCs, STs, and OBCs. The current system does not accommodate reservations, which raises concerns about equity and social justice.
- **Internal Resistance:** Traditional bureaucrats may resist the inclusion of lateral entrants, viewing them as outsiders who disrupt established power dynamics. This resistance can make it difficult for lateral entrants to integrate and effectively contribute to the system.

- **Selection Process:** The evaluation of lateral entry candidates lacks transparency and fairness. The broad criteria and short examinations/interviews make it difficult to accurately assess candidates' domain expertise and aptitude.

### Way Forward

- **Institutionalize the Process:** Ensure lateral entry is not ad hoc by establishing a transparent, merit-based system, overseen by bodies like UPSC, for consistent incorporation of external talent.
- **Promote Internal Specialization:** Encourage IAS officers to develop sector-specific expertise through specialized training to boost civil service efficiency.
- **Ensure Tenure Security:** Provide civil servants with tenure security to reduce political interference and enable independent, effective governance.
- **Gradual Integration:** Integrate lateral entrants gradually with mentorship from experienced civil servants for smoother assimilation and better results.
- **Address Equity Concerns:** Reassess lateral entry to include reservations for marginalized communities, aligning with social justice principles.

While lateral entry has its merits, it is not a panacea for the challenges facing India's administrative system. A balanced approach that combines lateral entry with reforms to enhance the existing cadre of officers, promote specialization, and ensure equity is essential for creating a more professional, efficient, and accountable bureaucracy. By addressing these challenges, India can build a civil service that is better equipped to meet the demands of modern governance.

## 5. SUB-CLASSIFICATION OF SCs AND STs

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Social justice > Government Policies > Reservations

#### REFERENCE NEWS:

- Recently, in a landmark 6-1 majority ruling, a seven-judge Constitution Bench of the Supreme Court held that Scheduled Castes do not constitute a socially homogeneous class and can be sub-classified by States for the purpose of providing reservation to the less privileged among them.

#### MORE ON NEWS:

- This ruling overturns the **2004 judgment in E V Chinnaiah vs State of Andhra Pradesh**, which declared SCs as a homogeneous group ineligible for further sub-classification.
- The decision was made by a seven-judge Constitution Bench led by **Chief Justice D Y Chandrachud**. The majority opinion was supported by six judges, with **Justice Bela M Trivedi dissenting**.
- **The matter reached the 7-judge Bench** after a 5-judge Bench, on August 27, 2020, in the **State of Punjab vs Davinder Singh**, said the judgement in Chinnaiah requires to be revisited by a larger Bench since it had failed to consider significant aspects with a bearing on the issue.
- The Supreme Court's ruling in the State of Punjab vs Davinder Singh case **concludes a 20-year legal struggle**, allowing states to sub-classify Scheduled Castes (SCs). The key contention was the interpretation of **Article 341** of the Constitution, which **empowers the President to designate SCs**. In **2004, the Supreme Court, in the E.V. Chinnaiah case**, held that SCs must be treated as a homogeneous group, barring any sub-quotas. However, the recent ruling overturns this view, enabling a more nuanced approach to reservations that addresses diverse needs and varying levels of disadvantage within the SC community.

#### KEY TAKEAWAYS FROM THE RULING

- **Constitutional Validation and Approval for Sub-Classification:**
  - The Supreme Court has confirmed the constitutional validity of sub-classifying Scheduled Castes (SCs) and Scheduled Tribes (STs) within existing reservation

frameworks. This decision **overturns the 2005 ruling in the E.V. Chinniah case**, which previously declared such sub-classification inconsistent with **Article 341**.

- The Court's ruling enables states to set **specific quotas** for the most disadvantaged within the SC and ST groups.
- **Creamy Layer**
  - Four of the justices in the majority ruling supported the **exclusion of the creamy layer** (applied to Other Backward Classes (**OBCs**) in the **Indra Sawhney Case**) from **SCs and STs**, favouring a policy to **exclude more affluent** members within these communities from reservation benefits to ensure that support reaches the neediest individuals.
- **Judicial Review:**
  - The Court highlighted that any state action on sub-classification is subject to judicial review, to **prevent arbitrary decisions** and ensure adherence to **constitutional principles**.
- **Empirical Data Requirement:**
  - The judgment stresses the need for states to base their sub-classification decisions on **quantifiable and demonstrable data** to ensure that they accurately reflect the levels of backwardness and are **not merely political decisions**.
- **Generational Limits on Reservation Benefits:**
  - The court ruled that reservation benefits should be limited to the **first generation within a family**, aiming to prevent the extension of these benefits to subsequent generations who have already surpassed social and economic hurdles. This decision ensures that reservation policies directly aid those currently facing significant disadvantages, rather than benefiting future generations whose circumstances may have improved.

#### Initiatives in Sub-Classification of SCs and STs:

- **Andhra Pradesh:**
  - In 2000, Andhra Pradesh implemented sub-quotas for certain SC subgroups under the **Andhra Pradesh Scheduled Castes (Rationalisation of Reservations) Act, 2000**, following the recommendations of the Justice Ramachandra Raju Commission from 1996. This law aimed at addressing intra-community disparities among SCs.
  - However, the Supreme Court in **2004, in the E.V. Chinniah Case**, struck down this initiative, asserting that **SCs are a homogeneous group** and sub-classification was **unconstitutional**. This decision was based on the interpretation of **Article 341** of the Constitution (which empowers the President to notify SCs) and suggested that **any sub-classification** would **violate the right to equality under Article 14**.

- **Punjab:**
  - Punjab took a similar approach in **1975**, issuing a notification that divided its 25% SC reservation into two categories: 50% for Balmikis and Mazhabi Sikhs and 50% for other SC groups. This action aimed to target support more effectively within the SC community by addressing disparities among its subgroups.
  - However, this notification was struck down by the Punjab & Haryana High Court in 2006 in the case of **Dr. Kishan Pal v. State of Punjab**, further affirming the view that SCs should be treated as a homogenous group.

### **WHY SUBCLASSIFICATION AMONG SCs AND STs IS NECESSARY**

- **Addressing Diverse Levels of Disadvantage:**
  - Sub classification acknowledges that SCs and STs consist of various subgroups with differing levels of disadvantage. For instance, **latest caste survey data** from **Bihar** revealed that while the Dhobi community had 124 individuals per 10,000 attaining higher education degrees, the Dusadh had 45, and the Musahar had just one.
  - Similarly, in Tamil Nadu, although Arunthathiyars **constitute about 16% of the SC population**, their representation in government jobs is disproportionately **low at about 0.5%**. These disparities highlight the need for targeted support to ensure reservation benefits reach the most marginalized groups.
- **Legal and Constitutional Support:**
  - The Supreme Court's recent ruling in the **State of Punjab vs Davinder Singh** case has clarified that **sub classification is constitutionally valid** and does not violate Articles 14 (right to equality) or 341 (definition of SCs) of the Constitution. This ruling overturns the 2004 E.V. Chinnaiah case, which had held that SCs must be treated as a homogeneous group, thus restricting the potential for targeted reservations.
- **Empirical Basis for Policymaking:**
  - The Court emphasized that any sub classification must be based on quantifiable and demonstrable data, ensuring that **decisions are grounded in empirical evidence** rather than political motivations.
  - This requirement for **data-driven policies** helps **ensure that affirmative action measures are both justifiable and effective** in addressing the specific needs of different subgroups within the SC and ST communities.
- **Setting a Precedent for Future Policies:**
  - This recent landmark judgment by the SC sets a precedent for future social justice initiatives, encouraging other states to adopt similar sub classification measures. This **sub classification approach** could lead to **more refined and effective reservation strategies across India**, addressing the varied levels of disadvantage within these protected categories.

- **Consideration of the Creamy Layer:**
  - The judgment also opens discussions on applying the **creamy layer** concept to SCs and STs. This concept, previously applied to Other Backward Classes (OBCs), would exclude the **more affluent members of SC and ST communities from reservation benefits**, ensuring that support is directed towards those **who are truly disadvantaged**.

### CHALLENGES IN SUB-CLASSIFICATION OF SCS AND STS

- **Inequality Within Sub-Categories**
  - Despite sub-classification, the most disadvantaged communities within SCs and STs may still not benefit sufficiently due to entrenched inequalities. Ensuring that sub-categories effectively uplift these groups remains a significant challenge.
- **Federalism and Legal Ambiguities:**
  - There is on-going debate about the **extent of state authority to sub-classify SCs and STs**, with conflicting judicial interpretations creating legal uncertainties. This can complicate the implementation and consistency of sub-classification policies across different states.
- **Criteria and Identification:**
  - Establishing **fair and transparent criteria for sub-classification** is complex. Determining metrics such as socio-economic status or educational attainment requires careful consideration to avoid arbitrary decisions and ensure fairness.
- **Data Collection and Accuracy:**
  - Obtaining accurate and comprehensive socio-economic data for various sub-groups within SCs and STs is crucial but difficult. **Inaccurate or incomplete data can undermine the basis for sub-classification** and result in ineffective policies.
- **Intra-Community Tensions**
  - Sub-classification could potentially lead to increased **social tensions within SC and ST communities**, as different sub-groups may feel unfairly treated or marginalized, leading to intra-community conflicts.
- **Administrative Burden:**
  - Implementing, managing, and updating sub-categories imposes a significant administrative burden on government agencies. This requires additional resources and continuous monitoring to ensure the effectiveness of sub-classification policies.
- **Risk of Political Misuse:**
  - There is a risk that sub-classification could be exploited for political gains, leading to arbitrary divisions and preferential treatment based on non-objective criteria.

Ensuring that sub-classification is driven by empirical evidence rather than political motives is essential.

- **Balancing Uniformity with Local Needs:**
  - Tailoring sub-classification policies to local needs while maintaining national uniformity is challenging. Variations across states may complicate the overall reservation framework and lead to inconsistencies.

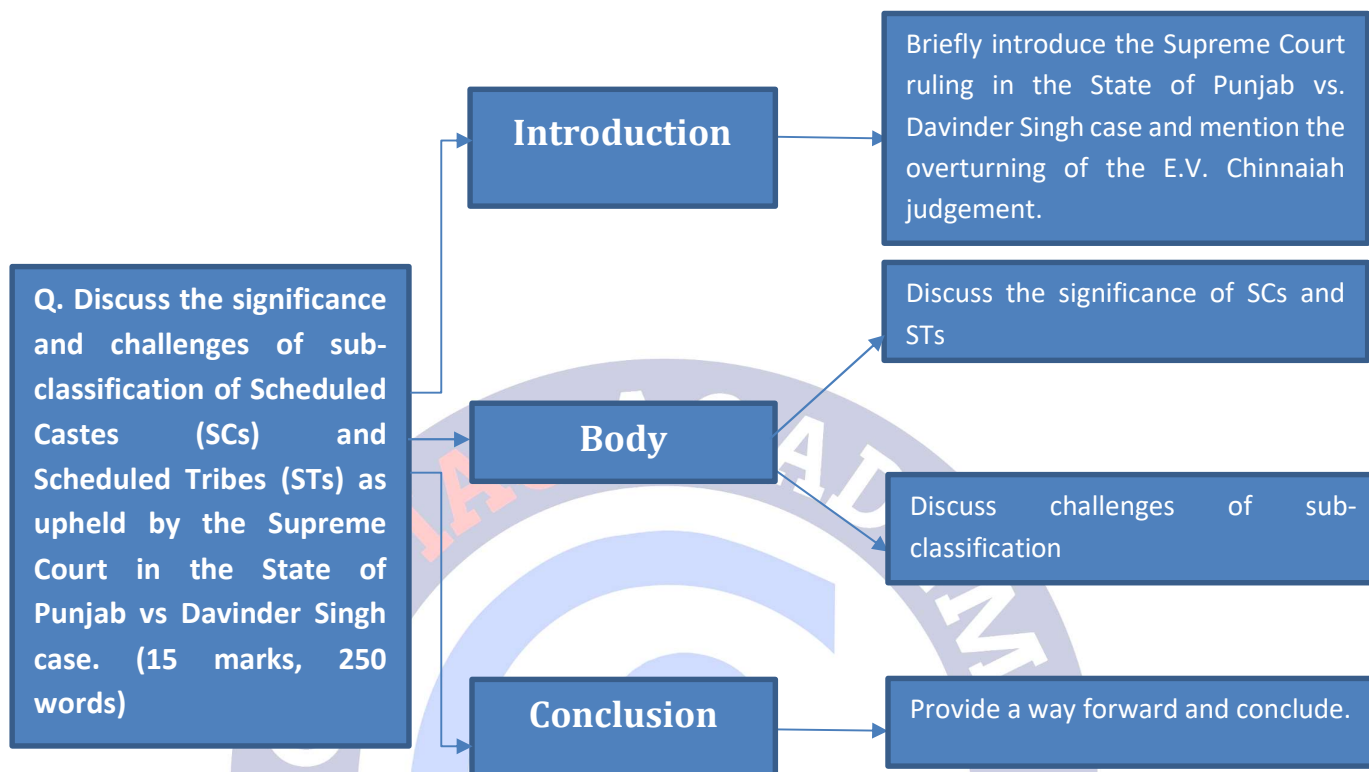
### **WAY FORWARD:**

- **Strengthening Data Collection:** Collect comprehensive and accurate socio-economic data on SC and ST sub-groups regularly to provide an empirical basis for sub-classification decisions and ensure targeted support for the most disadvantaged.
- **Establishing Clear Criteria:** Develop transparent and fair criteria for sub-classification based on socio-economic indicators to avoid arbitrary decisions and ensure equitable distribution of benefits.
- **Legal and Administrative Framework:** Create a robust legal and administrative framework to support sub-classification within constitutional guidelines, with mechanisms for regular review and adjustment.
- **Addressing Intra-Community Tensions:** Engage communities in dialogue and participatory decision-making to address potential tensions and build consensus on sub-classification policies.
- **Monitoring and Evaluation:** Implement monitoring frameworks to track the impact of sub-classification policies, making adjustments based on empirical evidence to ensure continued effectiveness.
- **Balancing Uniformity and Local Needs:** Maintain national guidelines for consistency while allowing states flexibility to tailor sub-classification measures to address local disparities effectively.
- **Political Commitment:** Ensure strong political will and commitment to prioritize social justice and implement sub-classification policies in good faith, focusing on uplifting the most disadvantaged groups.

### **PRACTICE QUESTION**

**Q. Discuss the significance and challenges of sub-classification of Scheduled Castes (SCs) and Scheduled Tribes (STs) as upheld by the Supreme Court in the State of Punjab vs Davinder Singh case. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

The Supreme Court's recent ruling in the State of Punjab vs Davinder Singh case marks a pivotal shift in India's reservation policies by allowing states to sub-classify Scheduled Castes (SCs) and Scheduled Tribes (STs). This decision overturns the **2004 E.V. Chinniah judgment**, which had declared **SCs as a homogeneous group**, thus **prohibiting sub-classification**. The new ruling recognizes the need for a nuanced approach to address the varied levels of disadvantage within these communities and clarifies that sub-classification **does not violate Article 14 (right to equality) or Article 341 (definition of SCs) of the Constitution**.

### Significance of Sub-Classification

- **Addressing Diverse Levels of Disadvantage:** Sub-classification acknowledges that SCs and STs consist of various subgroups with differing levels of social and economic disadvantage. For instance, in Tamil Nadu, although Arunthathiyars constitute about 16% of the SC population, their representation in government jobs is disproportionately low at about 0.5%. This example highlights the need for targeted support to ensure reservation benefits reach the most marginalized groups.



- **Equitable Distribution of Benefits:** By allowing sub-classification, the Supreme Court aims to prevent the monopolization of reservation benefits by relatively better-off subgroups within the SC and ST categories. This ensures that affirmative action truly benefits those in greatest need, promoting a more equitable distribution of resources and opportunities.
- **Legal and Constitutional Support:** The Supreme Court's ruling in the State of Punjab vs Davinder Singh case has clarified that sub-classification is constitutionally valid and does not violate Articles 14 (right to equality) or 341 (definition of SCs) of the Constitution. This ruling provides a legal framework for states to implement more nuanced reservation policies, thereby addressing the diverse needs and varying levels of disadvantage within the SC community.
- **Empirical Basis for Policymaking:** The Court emphasized that any sub-classification must be based on quantifiable and demonstrable data, ensuring that decisions are grounded in empirical evidence rather than political motivations. This requirement for data-driven policies helps ensure that affirmative action measures are both justifiable and effective in addressing the specific needs of different subgroups within the SC and ST communities.
- **Setting a Precedent for Future Policies:** This landmark judgment sets a precedent for future social justice initiatives, encouraging other states to adopt similar sub-classification measures. This approach could lead to more refined and effective reservation strategies across India, addressing the varied levels of disadvantage within these protected categories.
- **Consideration of the Creamy Layer:** The judgment also opens discussions on applying the creamy layer concept to SCs and STs. This concept, previously applied to Other Backward Classes (OBCs), would exclude the more affluent members of SC and ST communities from reservation benefits, ensuring that support is directed towards those who are truly disadvantaged.

### Challenges:

- **Inequality Within Sub-Categories:** Despite sub-classification, the most disadvantaged communities within SCs and STs may still not benefit sufficiently due to entrenched inequalities. Ensuring that sub-categories effectively uplift these groups remains a significant challenge.
- **Federalism and Legal Ambiguities:** There is ongoing debate about the extent of state authority to sub-classify SCs and STs, with conflicting judicial interpretations creating legal uncertainties. This can complicate the implementation and consistency of sub-classification policies across different states.

- **Criteria and Identification:** Establishing fair and transparent criteria for sub-classification is complex. Determining metrics such as socio-economic status or educational attainment requires careful consideration to avoid arbitrary decisions and ensure fairness.
- **Data Collection and Accuracy:** Obtaining accurate and comprehensive socio-economic data for various sub-groups within SCs and STs is crucial but difficult. Inaccurate or incomplete data can undermine the basis for sub-classification and result in ineffective policies.
- **Intra-Community Tensions:** Sub-classification could potentially lead to increased social tensions within SC and ST communities, as different sub-groups may feel unfairly treated or marginalized, leading to intra-community conflicts.
- **Administrative Burden:** Implementing, managing, and updating sub-categories imposes a significant administrative burden on government agencies. This requires additional resources and continuous monitoring to ensure the effectiveness of sub-classification policies.
- **Risk of Political Misuse:** There is a risk that sub-classification could be exploited for political gains, leading to arbitrary divisions and preferential treatment based on non-objective criteria. Ensuring that sub-classification is driven by empirical evidence rather than political motives is essential.
- **Balancing Uniformity with Local Needs:** Tailoring sub-classification policies to local needs while maintaining national uniformity is challenging. Variations across states may complicate the overall reservation framework and lead to inconsistencies.

#### Way Forward:

- **Strengthening Data Collection:** Collect accurate socio-economic data regularly.
- **Establishing Clear Criteria:** Develop fair criteria based on socio-economic indicators.
- **Legal and Administrative Framework:** Create a robust framework with review mechanisms.
- **Addressing Intra-Community Tensions:** Engage communities in dialogue to build consensus.
- **Monitoring and Evaluation:** Track policy impacts and adjust based on evidence.
- **Balancing Uniformity and Local Needs:** Maintain national guidelines with state flexibility.
- **Political Commitment:** Ensure strong political will to prioritize social justice.

The Supreme Court's ruling on sub-classification of SCs and STs is a pivotal step toward more effective and equitable reservation policies. It acknowledges diverse disadvantages and promotes targeted support, setting a new legal precedent. Addressing challenges like data

collection and intra-community tensions will be crucial. Moving forward, strong political commitment, robust legal frameworks, and data-driven policies will be essential to uplift the most marginalized and achieve social justice.



## 6. ALTERNATE DISPUTE RESOLUTION

### IMPACT ANALYSIS

#### SYLLABUS:

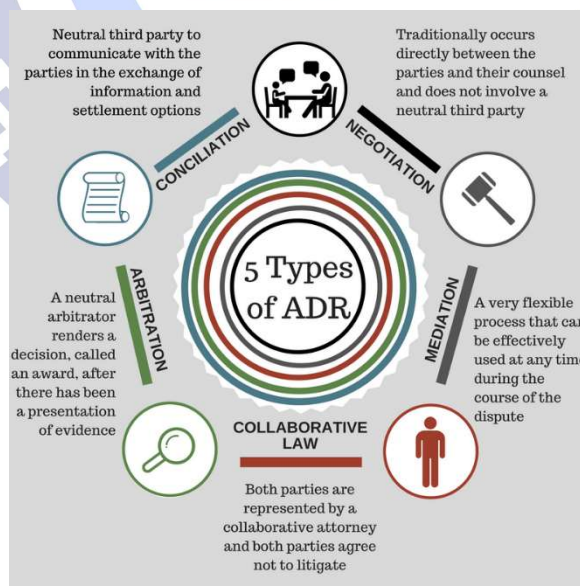
GS 2 > Polity > Judiciary

#### REFERENCE NEWS:

With the recent new guidelines for arbitration and mediation in contracts related to domestic public procurement ostensibly promoting mediation, it explicitly signals a shift away from arbitration for government undertakings. Consequently, once the current pipeline of arbitration cases dries out, future contracts are likely to resort to litigation through the traditional court system, thereby significantly increasing the burden on an already stretched legal system. Despite representations from industry bodies and the Arbitration Bar of India advising against this memorandum, it appears, at least for the time being, to be a fait accompli.

#### ALTERNATE DISPUTE RESOLUTION IN INDIA:

Alternate Dispute Resolution (ADR) refers to the processes and techniques used to **resolve disputes outside of the traditional courtroom setting**. ADR includes methods such as arbitration, mediation, conciliation and negotiation.



- India has a long history of ADR, with its roots traced back to ancient times. Traditional methods like Panchayats (village councils) and Nyaya Panchayats were commonly used to **resolve disputes at the community level.**
- During the British colonial period, the Indian legal system began to take a more formal shape, influenced by British legal principles. However, traditional ADR methods continued to coexist.
- The Arbitration Act, 1940, was the first significant legislation governing arbitration in India. It provided a legal framework for arbitration agreements, procedures, and enforcement of awards.
- The concept of **Lok Adalats (People's Courts)** emerged in the 1980s. Lok Adalats are **informal forums where disputes are resolved amicably with the consent of both parties.**
- A major milestone in the evolution of ADR in India was the enactment of the **Arbitration and Conciliation Act, 1996.** This legislation was based on **the UNCITRAL Model Law on International Commercial Arbitration** and aimed to modernize and streamline arbitration procedures.
- In 2004, the **Mediation and Conciliation Rules** were introduced under Section 89 of the Code of Civil Procedure, 1908. These rules provided a structured framework for mediation and conciliation, promoting these methods as effective alternatives to litigation.
- Prominent institutions that give professional ADR include the Indian Council of Arbitration (ICA), the International Centre for Alternative Dispute Resolution (ICADR), and the Mumbai Centre for International Arbitration (MCIA).
- The Supreme Court of India and various High Courts have set up mediation centres and encouraged the use of ADR to resolve disputes. Judicial pronouncements have emphasized the importance of ADR in **reducing the backlog of cases and delivering timely justice.**
- **The Commercial Courts Act, 2015,** aimed to improve the ease of doing business in India by providing a fast-track mechanism for commercial disputes.
- Subsequent amendments to the Arbitration and Conciliation Act, 1996, in 2015, 2019, and 2021, have further refined the legal framework for arbitration in India.
- The **Mediation Act, 2023,** enacted recently, lays down the legal framework for mediation to be adopted by parties to a dispute, especially institutional mediation where various stakeholders have been identified to establish a robust and efficacious mediation ecosystem in the country. The bill establishes **the Mediation Council of India** to promote and regulate mediation services.

### NEED OF ADR IN THE JUDICIAL LANDSCAPE OF INDIA:

- **Reduction in Case Backlog:** ADR mechanisms, such as arbitration, mediation, and conciliation, have played a crucial role in reducing the backlog of cases in Indian courts.
  - Example: The National Legal Services Authority (NALSA) organizes Lok Adalats, which have settled millions of cases. **In 2020 alone**, Lok Adalats disposed of **approximately 1.2 million cases across the country**, significantly reducing the burden on regular courts.
- **Time Efficiency:** ADR provides a faster resolution of disputes compared to the traditional court system, where cases can drag on for years.
  - Example: Family courts often use mediation to resolve matrimonial disputes quickly. In Delhi, mediation centres have resolved many family disputes within months, compared to years in regular courts.
- **Cost-Effectiveness:** ADR is generally less expensive than litigation, making it an attractive option for individuals and businesses.
  - Example: Companies often prefer arbitration for commercial disputes due to its cost-effectiveness. For instance, the Delhi International Arbitration Centre (DIAC) offers affordable arbitration services, reducing legal costs for businesses.
- **Confidentiality:** ADR processes are private and confidential, which is particularly beneficial in sensitive matters.
  - Example: Companies prefer mediation for intellectual property disputes to keep sensitive information out of the public domain. Successful mediation sessions at the Bombay High Court's Mediation Centre have preserved the confidentiality of trade secrets and business strategies.
- **Flexibility and Party Autonomy:** ADR allows parties more control over the dispute resolution process, including choosing the mediator/arbitrator and tailoring the process to their needs.
  - Example: Many contracts now include **customized arbitration clauses** that specify the rules, venue, and language of arbitration, providing flexibility that traditional courts cannot offer.
- **Preservation of Relationships:** ADR methods, especially mediation and conciliation, focus on **collaborative solutions**, helping preserve relationships between disputing parties.
  - Example: In business partnerships, mediation has successfully resolved conflicts without damaging professional relationships, as seen in the mediation services offered by the Bangalore Mediation Centre.
- **Empowerment of Communities:** ADR empowers communities by providing accessible and culturally sensitive dispute resolution mechanisms.

- Example : These traditional ADR methods continue to play a vital role in rural areas, resolving local disputes effectively and maintaining social harmony such as Panchayats and Nyaya Panchayats.
- **Enhanced Access to Justice:** ADR increases access to justice by providing alternative forums for dispute resolution, particularly for those who may find the formal judicial system daunting or inaccessible.
  - Example: Initiatives by legal services authorities at the state and national levels promote ADR methods, making justice more accessible to marginalized communities.
- **Specialized Dispute Resolution:** ADR allows for specialized resolution of disputes, with experts in specific fields acting as arbitrators or mediators.
  - Example: The Construction Industry Arbitration Council (CIAC) specializes in resolving construction disputes with experts in engineering and construction law serving as arbitrators.
- **Judicial Efficiency:** By diverting cases from the formal court system, ADR helps improve the overall efficiency of the judiciary.
  - Example: The Commercial Courts Act, 2015, encourages pre-litigation mediation for commercial disputes, enhancing judicial efficiency by reducing the number of cases that go to trial.

#### CHALLENGES OF ADR FRAMEWORK OF INDIA:

- **Lack of Awareness and Acceptance:** People, especially in rural areas, are not aware of ADR mechanisms or their benefits. There is also a lack of acceptance among certain sections of society and legal professionals.
  - Example: A study by the Vidhi Centre for Legal Policy in 2020 found that a significant percentage of the population was unaware of mediation and arbitration as viable options for dispute resolution.
- **Enforcement Issues:** The enforcement of arbitral awards and mediated settlements can be problematic, leading to delays and additional litigation.
  - Example: In the case of **ONGC v. Saw Pipes Ltd. (2003)**, the Supreme Court of India set a precedent for judicial interference in arbitral awards on grounds of "public policy," which has led to uncertainty and delays in enforcement.
- **Cost Concerns:** Although ADR is generally considered cost-effective, high-quality arbitration services can be expensive, sometimes making them inaccessible for smaller businesses and individuals.
  - Example: Arbitration fees at premier institutions like the International Chamber of Commerce (ICC) or even local institutions can be prohibitively high for many parties.

- **Judicial Intervention:** Excessive judicial intervention in arbitration proceedings undermines the autonomy of ADR processes.
  - Example: The case of **McDermott International Inc. v. Burn Standard Co. Ltd. (2006)** highlighted issues of judicial intervention, where the court extensively reviewed the merits of the arbitral award, leading to delays.
- **Lack of a Uniform ADR Policy:** There is no uniform policy or consistent framework governing ADR practices across different states and jurisdictions in India.
  - Example: Different states have varying rules and support mechanisms for ADR, creating inconsistencies and confusion for parties seeking resolution.
- **Training and Accreditation:** There is a need for standardized training and accreditation for arbitrators, mediators, and conciliators to ensure a high level of professionalism and competence.
  - **Example:** The absence of a national accreditation body leads to a wide disparity in the skills and qualifications of ADR professionals and lack of enough trained professionals
- **Cultural and Societal Barriers:** Cultural and societal attitudes towards dispute resolution can be a barrier, with a preference for traditional litigation over ADR methods.
  - **Example:** In certain communities, there is a distrust of non-judicial mechanisms and a belief that formal court decisions carry more weight and legitimacy.
- **Infrastructure and Technological Barriers:** Inadequate infrastructure and lack of technological adoption hinder the efficiency of ADR processes. Many ADR institutions lack proper technological infrastructure for conducting virtual hearings, which became evident during the COVID-19 pandemic.

#### WAY FORWARD FOR ADR ECOSYSTEM:

- **Enhancing Awareness and Education:** Introduce ADR modules in law schools and professional legal training programs. Conduct nationwide awareness campaigns to educate the public about the benefits and availability of ADR mechanisms.
  - The UK has integrated ADR education into its legal curriculum and conducts regular public awareness campaigns.
- **Standardizing Training and Accreditation:** Establish a national accreditation body to standardize the training and certification of arbitrators, mediators, and conciliators. Ensure continuous professional development to maintain high standards of practice.
  - The Singapore International Arbitration Centre (SIAC) and Singapore Mediation Centre (SMC) provide rigorous training and certification programs for ADR professionals.

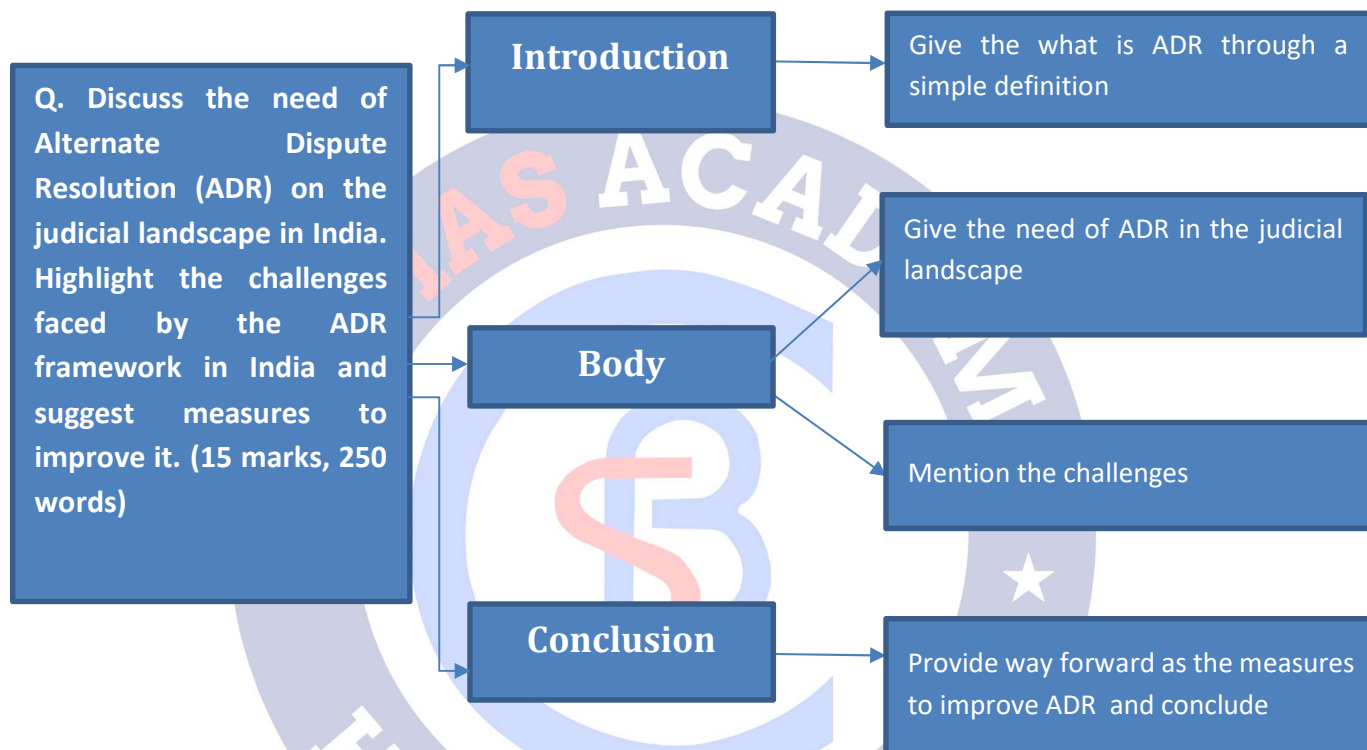


- **Establishing Robust Institutional Support:** Strengthen existing ADR institutions and establish new centres across the country, especially in under-served regions. Provide these institutions with adequate resources, infrastructure, and technological support.
  - The Hong Kong International Arbitration Centre (HKIAC) is renowned for its efficient and well-resourced ADR services.
- **Improving Enforcement Mechanisms:** Reduce judicial interference in arbitral awards by adhering to international standards, such as the **New York Convention**.
  - French courts have a streamlined process for the enforcement of arbitral awards, minimizing delays.
- **Promoting Mediation and Conciliation:** Promote the use of mediation and conciliation in civil and commercial disputes. Implement mandatory mediation for certain types of cases before they proceed to litigation.
  - The US has institutionalized mediation through the Alternative Dispute Resolution Act of 1998, requiring federal courts to offer ADR services.
- **Leveraging Technology:** Develop and implement ODR platforms to facilitate the resolution of disputes online. Encourage the use of video conferencing and digital document management in ADR processes.
  - Online Dispute Resolution (ODR): Platforms like eBay's ODR system resolve millions of disputes annually without physical meetings.
- **Adopting a Uniform ADR Policy:** Formulate a national ADR policy to ensure uniformity and consistency across all states.
  - The EU has a unified policy framework for ADR, ensuring consistency across member states.
- **Integrating ADR into the Judicial System:** Institutionalize court-annexed ADR programs, where judges can refer cases to mediation or arbitration.
  - The Canadian judicial system actively integrates ADR processes into court proceedings.
- **Encouraging Public-Private Partnerships:** Foster partnerships between government, private sector, and civil society organizations to promote ADR.
  - The Australian Dispute Resolution Association (ADRA) collaborates with private entities to promote ADR.
- **Providing Financial Incentives:** Offer tax benefits and subsidies for parties opting for ADR. Provide financial support for ADR centres and programs to reduce costs for users.
  - Japan: The Japanese government offers subsidies and financial incentives to promote the use of ADR.

## PRACTICE QUESTION

Q. Discuss the need of Alternate Dispute Resolution (ADR) on the judicial landscape in India. Highlight the challenges faced by the ADR framework in India and suggest measures to improve it. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Alternate Dispute Resolution (ADR) refers to a range of methods used to resolve disputes outside of the traditional courtroom setting, including arbitration, mediation, conciliation, and negotiation. ADR in India has a rich history and has evolved significantly over time, with Arbitration Act, 1996 providing an alternative to the overburdened judicial system.

### NEED OF ADR ON THE JUDICIAL LANDSCAPE IN INDIA:

1. **Reduction in Case Backlog:** ADR mechanisms have played a crucial role in reducing the backlog of cases in Indian courts. For instance, the National Legal Services Authority (NALSA) organized Lok Adalats that settled approximately 1.2 million cases in 2020.
2. **Time Efficiency:** ADR provides faster resolution compared to the traditional court system. Mediation in family courts, especially in Delhi, has resolved disputes within months.

3. **Cost-Effectiveness:** ADR is generally less expensive than litigation. The Delhi International Arbitration Centre (DIAC) offers affordable arbitration services, reducing legal costs for businesses.
4. **Confidentiality:** ADR processes are private and confidential, beneficial in sensitive matters like intellectual property disputes. The Bombay High Court's Mediation Centre has successfully preserved trade secrets.
5. **Flexibility and Party Autonomy:** ADR allows parties more control over the process, including choosing the mediator/arbitrator and customizing the process to their needs.
6. **Preservation of Relationships:** Mediation and conciliation focus on collaborative solutions, helping preserve relationships between disputing parties, particularly in business partnerships.

#### CHALLENGES OF ADR FRAMEWORK IN INDIA:

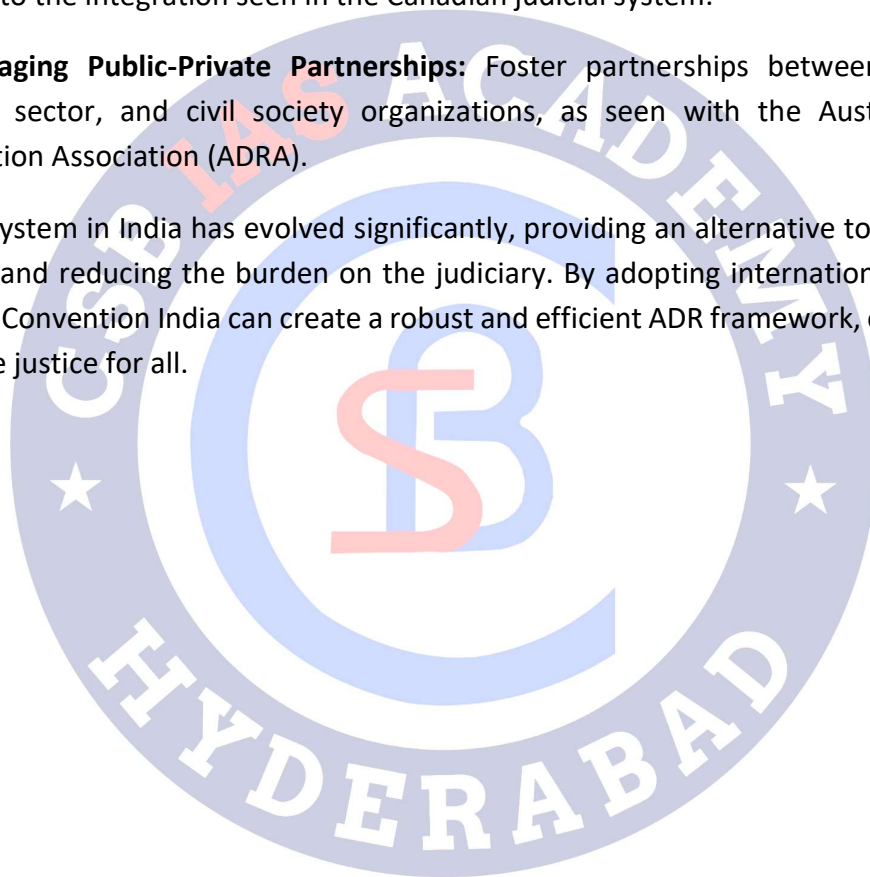
1. **Lack of Awareness and Acceptance:** Many people, especially in rural areas, are not aware of ADR mechanisms or their benefits. A study by the Vidhi Centre for Legal Policy in 2020 highlighted this issue.
2. **Cost Concerns:** High-quality arbitration services can be expensive, making them inaccessible for smaller businesses and individuals.
3. **Judicial Intervention:** Excessive judicial intervention undermines the autonomy of ADR processes, as highlighted in the *McDermott International Inc. v. Burn Standard Co. Ltd.* (2006) case.
4. **Lack of a Uniform ADR Policy:** There is no consistent framework governing ADR practices across different states, creating inconsistencies and confusion.
5. **Training and Accreditation:** The absence of standardized training and accreditation leads to a disparity in the skills and qualifications of ADR professionals.
6. **Infrastructure and Technological Barriers:** Inadequate infrastructure and lack of technological adoption hinder the efficiency of ADR processes, especially evident during the COVID-19 pandemic.

#### MEASURES TO IMPROVE ADR IN INDIA:

1. **Standardizing Training and Accreditation:** Establish a national accreditation body for ADR professionals, similar to the rigorous programs provided by the Singapore International Arbitration Centre (SIAC).

2. **Promoting Mediation and Conciliation:** Implement mandatory mediation for certain cases and institutionalize mediation in federal courts, as practiced in the US.
3. **Leveraging Technology:** Develop Online Dispute Resolution (ODR) platforms and encourage the use of video conferencing, similar to eBay's ODR system.
4. **Adopting a Uniform ADR Policy:** Formulate a national ADR policy to ensure uniformity and consistency across all states, inspired by the EU's unified policy framework for ADR.
5. **Integrating ADR into the Judicial System:** Institutionalize court-annexed ADR programs, similar to the integration seen in the Canadian judicial system.
6. **Encouraging Public-Private Partnerships:** Foster partnerships between government, private sector, and civil society organizations, as seen with the Australian Dispute Resolution Association (ADRA).

The ADR ecosystem in India has evolved significantly, providing an alternative to the traditional court system and reducing the burden on the judiciary. By adopting international conventions like New York Convention India can create a robust and efficient ADR framework, ensuring timely and accessible justice for all.



## 7. INDIA'S OLYMPICS PERFORMANCE

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Social Justice > Human Resources

*Content from this article would be useful in the Essay as well as GS4.*

#### REFERENCE NEWS:

- India's campaign at the Paris 2024 Olympics concluded with a total of six medals: one silver and five bronze. While this performance fell short of the record seven medals won at the Tokyo 2020 Olympics, it still showcased some notable achievements and highlighted areas for future improvement.

#### MEDAL HIGHLIGHTS:

- **Neeraj Chopra** continued to make history by securing a silver medal in the men's javelin throw, becoming the **first Indian track and field athlete to win two Olympic medals**.
- **Manu Bhaker** became the first Indian athlete to win **two medals in a single Olympic** edition, claiming bronze in both the 10m air pistol individual and mixed team events (with **Sarabjot Singh**).
- **Swapnil Kusale** added to India's tally with a bronze in the men's 50m rifle 3 positions shooting event.
- The **Indian men's hockey team** won a bronze medal, marking **back-to-back Olympic medals** in hockey for the first time **since 1972**.
- **Aman Sehrawat** earned a bronze in the men's 57kg freestyle wrestling, becoming the **youngest Indian** to win an Olympic medal.

Despite these successes, there were **several near misses**, with **six Indian athletes finishing in fourth place**, just shy of adding to the medal tally. Additionally, a decision by the Court of Arbitration for Sport regarding **Vinesh Phogat's case** could potentially add another medal to India's total, but as of now, the final count stands at six.

INDIA'S FINAL STANDING AT THE LAST 5 OLYMPICS!						
EDITION	NO. OF ATHLETES	🥇	🥈	🥉	TOTAL	RANK
2008 BEIJING	56	1	0	2	3	50
2012 LONDON	83	0	2	4	6	55
2016 RIO	117	0	1	1	2	67
2020 TOKYO	124	1	2	4	7	48
<b>2024 PARIS</b>	<b>117</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>71</b>

### LESSONS FROM THE PARIS OLYMPICS 2024:

#### Positives/Strengths:

- **Strategic Use of Resources:**
  - **Shooting:** The sport's resilience is a testament to effective **long-term planning** and strategic resource allocation. Legal reforms (tweaking of firearm laws led to mass participation) and the development of a competitive domestic structure have created a deep talent pool, leading to **three medals and several near misses**.
  - **Hockey:** The men's team's bronze medal was driven by **strategic coaching under Craig Fulton**, who implemented timely interventions and empowered leadership. His approach, which included **psychological support and innovative training**, showcased the impact of **giving a coach full freedom** to execute a well-planned strategy
- **Cultural and Environmental Influence:**
  - **Wrestling:** Aman Sehrawat's bronze medal, achieved with **just ₹16 lakh in support since December 2021**—far less than most Indian athletes—demonstrates his remarkable resilience. He overcame financial limitations and the controversies surrounding the sport due to issues with federation chief Brij Bhushan Sharan Singh, making him India's youngest Olympic medalist in wrestling.
- **Resilience of Star Athletes:**
  - **Neeraj Chopra:** Despite battling physical challenges, Chopra's ability to secure a silver medal following his Tokyo gold demonstrates the resilience and determination of India's top athletes, raising the bar for future Olympians.

#### Negatives/Areas for Improvement:

- **Underperformance in Key Sports:**
  - **Badminton:** The sport's failure to secure any medals for the **first time since the London Olympics** is a significant concern, particularly the lack of depth in women's

singles. The potential retirement of P.V. Sindhu after Los Angeles 2028 adds to the urgency of developing new talent.

- **Boxing:** The absence of emerging male contenders and the reliance on Nikhat Zareen as the sole promising talent in women's boxing highlight a worrying gap in future prospects for the sport.
- **Weightlifting:** With **Mirabai Chanu's fourth-place finish** marking her last Olympic appearance, the lack of new talent to continue her legacy is a critical issue that needs to be addressed.
- **Advice from Sports Legends:**
  - Prakash Padukone and Abhinav Bindra emphasize the risks of **overreliance on financial resources**. Despite the government's **₹72 crore investment under the Target Olympic Podium Scheme (TOPS)** for the Tokyo to Paris cycle, they advise that money alone cannot guarantee success.
  - Padukone urged the government and federations to be firmer with underperforming athletes, stressing that continuous demands for resources without results are unsustainable. Bindra echoed this, noting that the **Olympics aren't a "vending machine" where money automatically produces medals**. He emphasized that hard work, resilience, and hunger for success are the true drivers of Olympic victories, not just financial backing
- **Challenges in Sport-Specific Development:**
  - The broader issue of government money and support benefiting individual sportspersons rather than the sport as a whole was evident in Paris. This approach has led to weaknesses in some key sports, which could hurt India's future participation and medal prospects at the Olympics.

### REASONS FOR INDIA'S UNDERPERFORMANCE AT THE OLYMPICS:

- **Lack of Depth in Key Sports:**
  - India's overreliance on a few star athletes in sports like **badminton, boxing, and weightlifting** has led to vulnerabilities when these athletes either underperform or face stronger competition.
  - **The lack of a robust pipeline of emerging talent** in these sports has been a long-standing issue. **For example**, in badminton, the absence of **new contenders to follow in P.V. Sindhu's footsteps** was glaring, with India returning empty-handed for the first time since London 2012
- **Inconsistent High-Performance Programs:**
  - The inconsistency in implementing high-performance programs across different sports is a recurring problem. Sports like **shooting and hockey**, which have

benefited from **well-structured programs**, contrast sharply with sports like boxing and athletics, where such programs are either lacking or poorly managed.

- **For example**, while shooting yielded multiple medals, near misses in events like **Mirabai Chanu's fourth-place** finish in weightlifting highlight the inconsistency in support across different sports.
- **Overreliance on Financial Support:**
  - While financial investments like the **₹72 crore** under the Target Olympic Podium Scheme (TOPS) are crucial, they **are not a panacea**. The effectiveness of such funding depends heavily on **how it's utilized**, with emphasis needed on **holistic athlete development** rather than just providing resources.
  - As highlighted by sports legends Prakash Padukone and Abhinav Bindra, while financial support is essential, it must be complemented **by hard work and hunger for success**.
- **Psychological and Mental Preparation:**
  - Mental resilience is critical at the Olympic level, yet this area often receives less attention than physical training. Indian athletes frequently struggle with the psychological pressures of competition, which can lead to underperformance.
  - **For example**, Manu Bhaker, despite winning two bronze medals, **missed out on a third** due to the pressure during an intense shootout, resulting in a fourth-place finish in the 25m pistol event.
- **Controversies and Administrative Issues:**
  - Indian sports have often been plagued by **administrative inefficiencies, corruption, and favoritism**, which can demoralize athletes and disrupt their preparation. These issues are not just limited to the Olympics but are a broader reflection of the governance challenges in Indian sports.
  - **For example**, the **controversies surrounding wrestling** in the lead-up to the Paris 2024 Olympics, including issues with federation chief Brij Bhushan Sharan Singh, likely contributed to the challenges faced by athletes.
- **Limited Grassroots Development:**
  - The lack of investment in grassroots sports development has led to a narrow talent pool, with most resources concentrated on elite athletes. This approach **limits the discovery and nurturing of new talent**, which is essential for sustained success at the Olympics.
  - **For example**, the absence of successors in sports like weightlifting, badminton, and boxing, where athletes like **Mirabai Chanu, P.V. Sindhu, and Mary Kom have been lone stars**, highlights the need for a broader focus on developing young athletes from the grassroots level.
- **Cultural Attitudes Towards Sports:**



- In India, **sports other than cricket** often struggle to gain the cultural importance needed to drive widespread participation and excellence. The lack of a strong sports culture, especially in rural areas, limits the pool of potential athletes who could compete at the highest levels.
- **Inadequate Sports Infrastructure:**
  - The quality and availability of sports infrastructure in India are insufficient, especially outside major cities, hindering early athlete development and limiting high-level competition.
  - Many athletes must travel long distances for proper training, which discourages participation and hampers talent growth.
- **Talent Identification and Development:**
  - India lacks an effective system for identifying and nurturing talent from a young age, often missing potential athletes due to biases and inefficiencies.
  - Unlike countries like China and Russia, which have robust talent identification programs, India needs to adopt similar strategies to ensure consistent international performance.

#### **GOVERNMENT INITIATIVES:**

- **Target Olympic Podium Scheme (TOPS):** Provides financial support and customized training programs to elite athletes to enhance their chances of winning Olympic medals.
- **Khelo India Program:** Aims to develop sports at the grassroots level by identifying young talent and providing them with the necessary training and resources.
- **Sports Authority of India (SAI) Training Centers:** Operates various training centers across the country, providing infrastructure and coaching to nurture talent in multiple sports disciplines.
- **Fit India Movement:** Promotes physical fitness and a sports culture across the country, encouraging wider participation in sports.
- **National Sports Development Fund (NSDF):** Offers financial assistance for the promotion and development of sports, including the training of athletes and coaches.

#### **WAY FORWARD:**

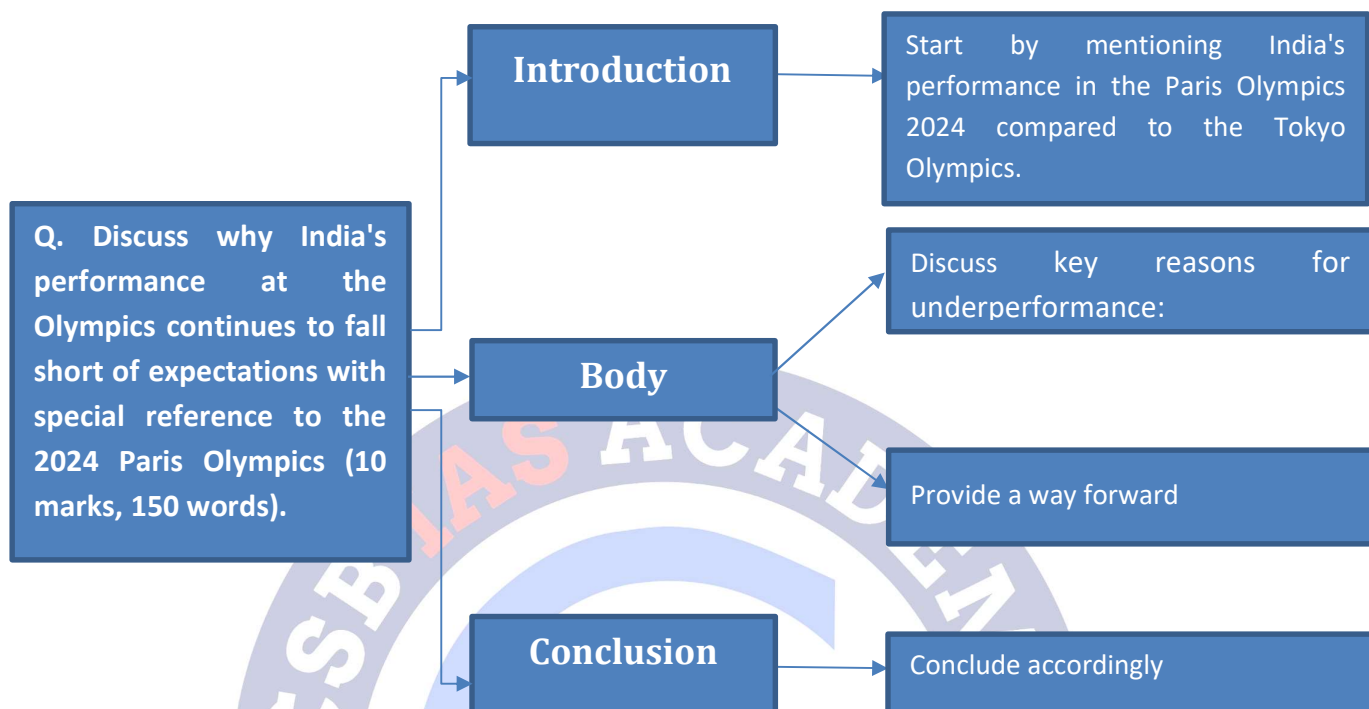
- **National Sports Development Code of India 2011:** Fully adopt and implement the National Sports Development Code of India 2011 to ensure transparency, accountability, and uniformity in sports administration across all sports bodies.
- **Decentralize Governance:** Shift governance responsibilities to regional and local levels, allowing for more tailored and responsive sports management. Empower state and district sports bodies to make decisions that align with local needs and conditions, fostering a more inclusive and effective sports environment.

- **Fix Accountability:** Establish clear accountability mechanisms by setting performance metrics for sports administrators and regularly auditing their performance. Address issues of corruption and favoritism by enforcing strict penalties for non-compliance with governance standards.
- **Strengthen Grassroots Development:** Invest more in grassroots programs to identify and nurture young talent, ensuring a steady pipeline of future athletes across various sports.
- **Enhance High-Performance Programs:** Implement consistent and well-structured high-performance programs across all sports, with a focus on both physical and mental preparation.
- **Improve Sports Infrastructure:** Expand and upgrade sports infrastructure, particularly in rural and semi-urban areas, to provide wider access to quality training facilities.
- **Foster a Strong Sports Culture:** Promote a sports culture that values and supports diverse sports disciplines, encouraging participation from a young age.
- **Address Administrative Issues:** Reform sports governance to eliminate corruption, favoritism, and inefficiencies, creating a more supportive environment for athletes.
- **Balanced Resource Allocation:** Ensure that financial resources are used effectively, complementing them with efforts to build resilience, work ethic, and a hunger for success among athletes.

## PRACTICE QUESTION

Q. Discuss why India's performance at the Olympics continues to fall short of expectations with special reference to the 2024 Paris Olympics (10 marks, 150 words).

## APPROACH



## MODEL ANSWER

India's performance at the Paris 2024 Olympics resulted in six medals: one silver and five bronze. While this was a commendable achievement, it fell short of expectations, especially compared to the seven medals won at the Tokyo 2020 Olympics. This performance reflects broader challenges that need to be addressed.

### Key Reasons for Underperformance:

- **Strategic Use and Misuse of Resources:** Despite substantial investments like the ₹72 crore under the Target Olympic Podium Scheme (TOPS), financial support alone has proven insufficient. **For example**, the Indian badminton team, despite significant financial backing, failed to secure any medals, echoing Prakash Padukone's warning that money alone cannot guarantee success.
- **Ineffective Resource Allocation:** Resource allocation often prioritizes a few high-profile athletes, neglecting broader developmental needs. **For example**, in boxing, India heavily depended on Nikhat Zareen without adequate support for emerging male contenders, which led to underperformance.

- **Talent Identification and Development Flaws:** The inconsistency in high-performance programs has resulted in uneven results across sports. **For example**, shooting benefited from focused developmental support, resulting in three medals, contrasting sharply with athletics and boxing, which lacked structured support and underperformed.
- **Limited Grassroots Development:** Grassroots development is often underfunded, impacting the emergence of new talent. **For example**, wrestler Aman Sehrawat's bronze with only ₹16 lakh in support since December 2021 highlights success despite systemic neglect, underscoring the need for robust grassroots programs.
- **Psychological Challenges:** The mental aspect of sports preparation is frequently overlooked. **For example**, Manu Bhaker faced psychological pressures during the 25m pistol shootout, which led to a near miss, illustrating the critical need for psychological support and training for athletes.
- **Administrative Challenges:** Corruption and inefficiencies within sports administrations can undermine athletes' performance and morale. **For example**, the controversies surrounding the wrestling federation, especially issues with its chief, likely affected the wrestlers' focus and performance.
- **Cultural Barriers:** Cricket's dominance in India often overshadows other sports, affecting funding and public support for athletes in less popular disciplines. **For example**, other sports struggle to gain the same level of cultural importance and public support, which restricts their development and success.
- **Infrastructural Barriers:** Inadequate sports infrastructure, particularly outside urban centers, limits athletes' access to quality training. **For example**, athletes from rural areas often do not have facilities necessary to train at an Olympic level, hindering their competitive preparedness.

### Way Forward:

To improve future Olympic performances, India must:

- Fully implement the National Sports Development Code of India 2011 to ensure transparency, accountability, and uniformity in sports administration.
- Decentralize governance by empowering regional and local bodies for tailored, responsive sports management.
- Fix accountability by setting clear performance metrics, conducting regular audits, and enforcing penalties for corruption and favoritism.
- Strengthen grassroots development through programs like Khelo India.
- Implement consistent high-performance programs across all sports.

- Enhance sports infrastructure, particularly in rural areas.
- Foster a strong sports culture beyond cricket.
- Address administrative inefficiencies and ensure effective use of financial resources.

Despite the underwhelming overall performance in 2024 Olympics, certain sports like **shooting, hockey, and wrestling offered lessons in resilience and strategic planning**. The campaign revealed significant areas for improvement, particularly in **nurturing emerging talents and ensuring a broader base of participation in key sports**. The disappointment of the Paris Olympics serves as a reminder of the challenges ahead as India prepares for future Olympic Games.



## 8. SPORTS GOVERNANCE

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Governance

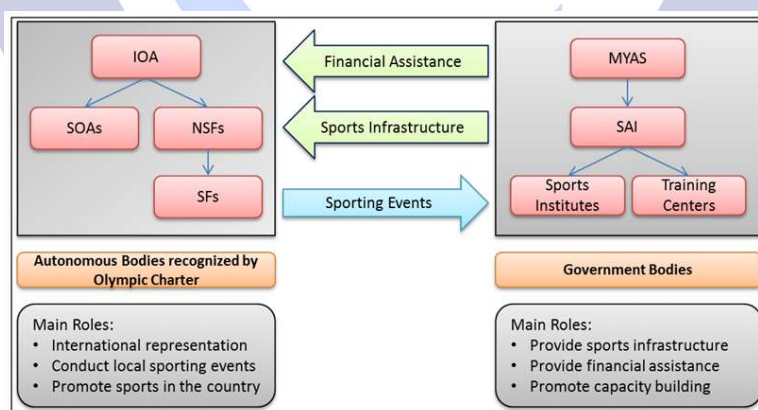
#### REFERENCE NEWS:

With Vinesh Phogat's disqualification and following uproar in support of her, with loss of medals in Badminton and Prakash Padukone vocalising the situation, India's sports infrastructure has been compared with other countries like China, USA etc. Indian sports governance needs an urgent revamp to support the Indian youth physically, financially and mentally.

#### SPORTS GOVERNANCE IN INDIA:

The existing model of governance of sports in India has two wings:

- One - controlled by **Ministry of Youth Affairs and Sports (MYAS)** and has institutions like the **Sports Authority of India (SAI)** and other institutions working towards promoting sports training under SAI.
- Other - headed by the **Indian Olympic Association (IOA)** having under it, State Olympic Associations (SOAs) and national and state Sports Federations (NSFs and SFs).



**Good governance in sports is crucial to ensure transparency, accountability, fairness, and the integrity of sporting activities.** In India, the governance of sports is regulated through a combination of laws, guidelines, and policies formulated by both the central government and various sports bodies.

**The National Sports Policy, 2001:**

- Promotion of sports and physical education as integral parts of the educational system.
- Development of sports infrastructure across the country.
- Identification and nurturing of sports talent.
- Encouragement of private sector participation in sports development.

**The Sports Code, 2011:** The Sports Code is a comprehensive set of guidelines issued by the Ministry of Youth Affairs and Sports to govern the functioning of National Sports Federations (NSFs).

- **Tenure and Age Limits:** Prescribes limits on the tenure and age of office bearers in sports federations to prevent monopolization of power.
- **Transparency:** Mandates transparent functioning of sports federations, including regular audits, financial disclosures, and proper maintenance of accounts.
- **Athlete Representation:** Ensures representation of athletes in decision-making processes within sports federations.
- **Conflict of Interest:** Prohibits office bearers from holding multiple positions that may lead to conflicts of interest.

**The National Anti-Doping Agency (NADA):** NADA is responsible for promoting, coordinating, and monitoring doping control in sports in India.

- Implementation of the World Anti-Doping Code in India.
- Conducting random and event-specific drug tests on athletes.
- Imposing sanctions on athletes found guilty of doping violations.
- Organizing awareness programs about anti-doping regulations and the harmful effects of drugs.

**The Right to Information Act, 2005 (RTI):** The RTI Act allows citizens to seek information about the functioning of sports bodies, particularly those that receive government funding. It enhances transparency and accountability in the administration of sports by ensuring that sports federations and organizations operate in an open and transparent manner.

**The Prevention of Corruption Act, 1988:** This act is applicable to officials and office bearers of sports federations who are considered public servants. It seeks to prevent corruption in sports administration by imposing strict penalties for corrupt practices.

- Penalizing public servants for accepting bribes or engaging in corrupt practices.
- Empowering investigating agencies to probe allegations of corruption within sports organizations.

**The National Sports Development Code of India, 2011:** The National Sports Development Code consolidates various government orders, instructions, and guidelines for the development of sports in India.

- Guidelines for the registration and recognition of National Sports Federations (NSFs).
- Emphasis on good governance, transparency, and accountability in the functioning of NSFs.
- Mandates the adoption of best practices in sports management.
- Encourages NSFs to adopt international standards and practices in the management of sports.

**The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:** This act is applicable to sports organizations and bodies, ensuring that women athletes and staff are protected from sexual harassment.

- Establishment of an Internal Complaints Committee (ICC) within sports organizations.
- Mandates a safe working environment for women athletes and staff.
- Ensures prompt investigation and redressal of complaints related to sexual harassment.

**The Indian Olympic Association (IOA) Guidelines:** The IOA provides guidelines for the administration and governance of sports bodies affiliated with it.

- Ensures adherence to the Olympic Charter.
- Promotes ethical conduct and fair play in sports.
- Mandates the adoption of anti-corruption measures by sports bodies.

**The Code of Ethics for Sports Federations:** Various sports federations in India have adopted their own codes of ethics to ensure integrity and ethical conduct in sports.

- Rules against match-fixing, doping, and other unethical practices.
- Guidelines for the conduct of athletes, coaches, and officials.
- Mechanisms for reporting and addressing ethical violations.

**The Lokpal and Lokayuktas Act, 2013:** This act covers sports administrators and federations receiving government funding, allowing for investigation into corruption and maladministration in sports bodies.

### **CHALLENGES TO SPORTS GOVERNANCE IN INDIA:**

- **Lack of Transparency and Accountability:** leading to issues such as financial mismanagement, favoritism, and corruption.



- **Cricket (BCCI):** The 2013 IPL spot-fixing scandal exposed the lack of transparency in the administration of the sport, leading to the Supreme Court's intervention and the appointment of the Lodha Committee to reform the BCCI.
- **Political Interference:** Political interference in the functioning of sports bodies often leads to inefficiency, biased decision-making, and the appointment of unqualified individuals in key positions.
  - **Indian Olympic Association (IOA):** The suspension of IOA by the International Olympic Committee (IOC) in 2012 due to government interference is a case in point.
  - **Hockey India:** The frequent changes in coaching staff and administrative decisions have hindered the consistent growth of the sport in India.
- **Corruption and Mismanagement:** leading to the siphoning off of funds meant for the development of sports and athletes.
  - **Commonwealth Games 2010:** The organization of the 2010 Commonwealth Games in Delhi was marred by allegations of massive corruption, including inflated contracts, substandard infrastructure, and misappropriation of funds.
  - **Badminton Association of India (BAI):** The BAI has faced allegations of financial irregularities and mismanagement, which have affected the development of badminton in the country
- **Lack of Professionalism:** Sports governance in India often lacks professionalism, with many sports bodies being run by individuals with little or no experience in sports management.
  - **BCCI** appointing Amit Shah's son as the chair attracted widespread discussions
  - **Football (AIFF):** The All India Football Federation (AIFF) has been criticized for its lack of professionalism and poor planning. The failure to develop a strong domestic league and grassroots programs is a reflection of the lack of professional management.
  - **Athletics Federation of India (AFI):** The handling of the 2018 Asian Games athletics team selection was widely criticized for being chaotic and unfair.
- **Gender Inequality and Discrimination:** Gender inequality and discrimination persist in Indian sports, affecting female athletes' opportunities, funding, and representation in sports administration.
  - **Wrestling:** The allegations of sexual harassment against WFI officials by top female wrestlers in 2023 highlighted the gender-based challenges female athletes face, including lack of support and inadequate representation in decision-making bodies.

- **Inadequate Infrastructure and Support:** Many sports in India suffer from inadequate infrastructure, lack of proper coaching, and insufficient support for athletes, especially at the grassroots level.
  - **Badminton:** While badminton has seen a surge in popularity due to the success of players like P.V. Sindhu and Saina Nehwal, the infrastructure at the grassroots level remains inadequate.
- **Inadequate Representation of Athletes:** There is often a lack of adequate representation of athletes in the decision-making processes of sports federations, leading to policies that do not necessarily reflect the interests of the players.
  - **IOA:** The Indian Olympic Association has faced criticism for not adequately representing athletes' voices in its governance structure, leading to decisions that may not always prioritize athlete welfare.

### WAY FORWARD:

- **Reducing Political Interference:** Limit the involvement of politicians in sports administration by enforcing tenure and age limits for office bearers in sports bodies. Encourage the separation of government oversight from the day-to-day functioning of sports federations.
  - Australian Sports Commission (ASC): The ASC operates independently of the government, ensuring that sports governance is led by professionals and experts rather than politicians contributing to Australia's success in various sports, particularly in the Olympics.
- **Developing Grassroots Infrastructure:** Invest in the development of sports infrastructure at the grassroots level, particularly in rural and underprivileged areas. Establish sports academies and training centres across the country to identify and nurture young talent.
  - "Sport for All" Initiative in Finland: focuses on creating accessible sports facilities in every community. By encouraging participation in sports from an early age, Finland has developed a strong sports culture and produced top-level athletes across various disciplines.
  - Khelo India Program by India
- **Promoting Inclusivity and Gender Equality:** Ensure equal opportunities for women in sports by providing equal funding, facilities, and media coverage for women's sports. Implement policies that address gender discrimination and promote the inclusion of marginalized communities in sports. Establish safe environments for female athletes, with strict measures against harassment and abuse.
  - Title IX of the Education Amendments Act of 1972 has been instrumental in promoting gender equality in sports. It mandates that educational institutions

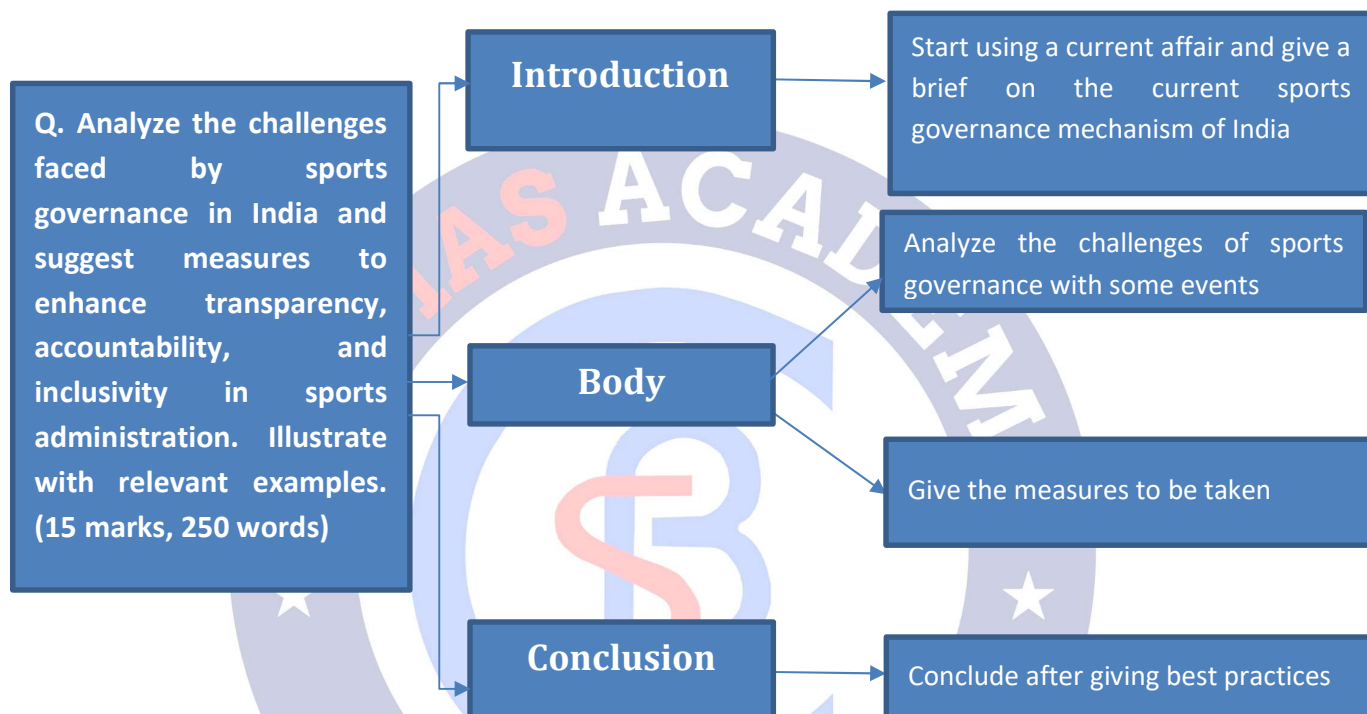
receiving federal funding must provide equal opportunities for male and female athletes.

- **Professionalizing Sports Management:** Introduce professional sports management programs in universities to develop a cadre of skilled sports administrators. Encourage sports federations to adopt corporate governance principles, including strategic planning, risk management, and performance evaluation.
  - Professionalization of Sports Management in Germany through initiatives like the German Olympic Sports Confederation (DOSB), has led to efficient sports governance and the successful organization of major sporting events. This approach has helped Germany consistently perform well in international competitions.
- **Encouraging Private Sector Participation:** Create incentives for private companies to invest in sports, including tax benefits, branding opportunities, and public-private partnerships. Promote the establishment of sports leagues and franchises to provide professional opportunities for athletes and generate revenue for sports development.
  - Indian Premier League (IPL): The IPL is a prime example of successful private sector participation in sports. By leveraging corporate sponsorships and media rights, the IPL has revolutionized cricket in India, attracting talent from around the world and generating significant revenue.
- **Integrating Sports with Education:** Incorporate sports as a mandatory part of the school curriculum, with regular physical education classes and inter-school competitions. Provide scholarships and incentives for students excelling in sports, encouraging them to pursue sports alongside academics.
  - The "Sport Schools" in China integrated sports with education by establishing specialized "sport schools" that focus on training young athletes while ensuring they receive a quality education.
- **Promoting a Culture of Sports:** Launch nationwide campaigns to promote the importance of sports and physical fitness among youth. Use media, including social media, to celebrate sports achievements and create role models for young athletes. Encourage community-based sports programs that involve families and local communities in sports activities.
  - "This Girl Can" Campaign in the UK by Sport England was launched to encourage women of all ages to participate in sports and physical activities.
  - Odisha Govt initiative to develop sports infrastructure for hockey

## PRACTICE QUESTION

Q. Analyze the challenges faced by sports governance in India and suggest measures to enhance transparency, accountability, and inclusivity in sports administration. Illustrate with relevant examples. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Sports governance in India is primarily under the Ministry of Youth Affairs and Sports which has organisations like Sports Authority of India, Indian Olympic Association etc. Recent events of Olympic disqualification of Vinesh Phogat and numerous talents finishing at 4<sup>th</sup> place raises serious retrospection into the sports governance of the country.

### CHALLENGES IN SPORTS GOVERNANCE:

#### 1. Lack of Transparency and Accountability:

- **Example:** The Board of Control for Cricket in India (BCCI) has faced criticism for opaque functioning. The 2013 IPL spot-fixing scandal exposed the lack of transparency, leading to the Supreme Court's intervention and reforms by the Lodha Committee

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## 2. Corruption and Mismanagement:

- **Example:** The 2010 Commonwealth Games in Delhi were marred by allegations of corruption, including inflated contracts and misappropriation of funds, which severely impacted India's image globally

## 3. Lack of Professionalism:

- **Example:** The All India Football Federation (AIFF) has been criticized for poor planning and management, leading to a lack of development in domestic leagues and grassroots programs

## 4. Gender Inequality and Discrimination:

- **Example:** Female athletes in India, such as top wrestlers, have faced sexual harassment by officials, highlighting the gender-based challenges in Indian sports governance.

## MEASURES TO ENHANCE SPORTS GOVERNANCE:

### 1. Reducing Political Interference:

- **International Practice:** The Australian Sports Commission operates independently of the government, ensuring sports governance led by professionals rather than politicians. This model could be replicated in India to reduce political meddling

### 2. Developing Grassroots Infrastructure:

- **International Practice:** Finland's "Sport for All" initiative focuses on creating accessible sports facilities in every community. A similar approach in India could foster a strong sports culture from an early age

### 3. Promoting Inclusivity and Gender Equality:

- **International Practice:** The Title IX of the Education Amendments Act in the USA mandates equal opportunities for male and female athletes. Implementing similar policies in India would promote gender equality in sports

### 4. Encouraging Private Sector Participation:

- **Example:** The success of the Indian Premier League (IPL) in cricket is a testament to the potential of private sector involvement in sports. Expanding such models to other sports could generate revenue and provide professional opportunities

#### 5. Integrating Sports with Education:

- **International Practice:** China's "Sport Schools" integrate sports with education, producing Olympic-level athletes. Adopting this model could help India in developing young talent while ensuring academic education.

Improving sports governance in India requires a multifaceted approach that includes reducing political interference, enhancing transparency, promoting gender equality, and investing in grassroots infrastructure.



## 9. BROADCASTING BILL, 2023

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Polity > Rights

#### REFERENCE NEWS:

The hold on the Broadcasting Bill comes after criticism around its expansive provisions for online content creators, and the secretive way in which one of its subsequent versions was floated for consultation. The Ministry of Information and Broadcasting has put the draft Broadcasting Bill, 2023 on hold, Minister of Information and Broadcasting, Electronics and Information Technology Ashwini Vaishnaw, indicated to reporters saying there would be a wider consultation with creators and other stakeholders.

#### PROVISIONS OF BROADCASTING BILL 2023:

The new Broadcasting Services (Regulation) Bill, 2023, aims to replace the Cable Television Networks (Regulation) Act, 1995 proposing mandatory registration, content evaluation committees for self-regulation, and a **three-tier regulatory system**. The government claims it will modernise regulations and enhance business ease but the move raises concerns over potential censorship and impacts on freedom of speech due to increased scrutiny of digital media for “obscene and vulgar” content.

**Purpose and Scope:** The Bill seeks to regulate all forms of broadcasting services, including television, radio, internet, over-the-top (OTT) services and social media creators. The draft Bill also seeks to regulate broadcast of news and current affairs programmes (excluding print news). Such programmes will have to comply with the prescribed programme code and advertisement code. Individuals offering tax advice on platforms like YouTube or frequently posting news updates on Twitter could be classified as digital news broadcasters and subjected to the Bill’s regulations.

**Definitions:** The Bill provides extensive definitions for various terms, including "Broadcasting," "Broadcasting network operator," "Broadcaster," "OTT broadcasting service," "Internet broadcasting network," “digital news broadcaster,” “professional” and more. These definitions are crucial for understanding the scope and application of the regulations.

**Regulation of Broadcasting Services:** The Bill mandates that no person can provide broadcasting services or operate a broadcasting network without proper registration or intimation as per the

provisions of the Bill. It sets eligibility criteria for registration and defines who cannot be registered as a broadcaster or network operator, including government entities and individuals with foreign control. There will be penalties for non-compliance. The centre may prohibit the transmission of a programme or operation of broadcaster or broadcasting network by citing public interest or national security reasons.

**Three tier regulatory system:** The Bill proposes the establishment of a Broadcast Advisory Council, Self-regulation by operators like a grievance redressal officer and self-regulatory organisations to advise the government on matters related to broadcasting services. Every broadcaster or broadcasting network operator **must establish a Content Evaluation Committee (CEC)** with members from various social groups, including women, child welfare, Scheduled Castes, Scheduled Tribes, and minorities. Broadcasters will be **allowed to air only those programmes certified by the CEC**, except for specific shows exempted by the government. The **Centre**, meanwhile, will have the authority to define the size, quorum, and other operational details of the committee.

**Categories of Broadcasting Networks:** The Bill categorizes broadcasting networks into cable, satellite, radio, internet, and terrestrial networks, each with specific regulations. Also Broadcasters will have to **classify their programmes into different categories** based on context, theme, tone, impact and target audience. The classification must be prominently displayed at the beginning of the show so that viewers can make “informed decisions”.

**Regulation of Content:** The Bill outlines provisions for regulating content, including news and current affairs, to ensure that broadcasting services comply with prescribed standards. There are provisions for inspection and seizure of equipment by government without prior notice. Companies are liable unless they prove a lack of knowledge or due diligence.

**Accessibility and Inclusivity:** The Bill includes provisions for "Accessibility Guidelines" to ensure that broadcasting services are accessible to all, including persons with disabilities.

### **MAIN CONCERNS:**

- **Legal obligation for independent creators:** The Bill allows the government to regulate content across all broadcasting services, including OTT platforms and the internet, raising concerns about the potential suppression of dissenting voices and creative freedom.
  - If a creator is classified as a digital news broadcaster, they must notify the Ministry of Information and Broadcasting (MIB) about their work. They are also required to form content evaluation committees (CEC) at their own expense. All digital news broadcasters must inform the MIB.
- **Overreach and Government Control:** Critics argue that the Bill grants excessive power to the Central Government, particularly in terms of content regulation. This could lead to



**government overreach and potential censorship, stifling free speech and media independence.**

- **Ambiguity in Definitions:** The Bill's definitions of terms like "broadcasting" and "OTT broadcasting service" are broad and could lead to **interpretative challenges**. This ambiguity might result in inconsistent enforcement or misuse of the law.
- **Impact on OTT Platforms:** Including OTT platforms under the purview of the Bill has raised concerns among content creators and digital platforms. They fear that stringent regulations could limit the diversity and innovation that these platforms currently offer. OTT platforms might face significant compliance burdens, which could stifle smaller players and reduce the variety of content available to consumers.
- **Challenges for Smaller Broadcasters:** The Bill mandates registration and licensing for all broadcasters, which could pose a challenge for smaller or independent broadcasters due to the costs and bureaucratic processes involved. The prohibition on entities with foreign control from registering as broadcasters **could limit investment in the Indian broadcasting sector**, particularly affecting smaller companies that rely on foreign funding.
- **Subscriber Management System:** The requirement for a subscriber management system raises concerns about the privacy of users. The collection and management of detailed subscriber information could lead to potential misuse or unauthorized access to personal data.
- **Impact on Media Diversity:** The Bill's provisions could lead to a **concentration of media ownership**, where only large players with the resources to comply with the regulations can survive. This could reduce media diversity and plurality, affecting the range of perspectives available to the public.
- **Role of TRAI:** The continued role of TRAI in regulating the broadcasting sector alongside the new provisions of the Bill might lead to overlapping jurisdictions and regulatory conflicts. This could create confusion and inefficiencies in the sector.
- **Impact on News and Current Affairs:** The regulation of news and current affairs content has raised alarms about potential government interference in editorial independence. There is a fear that this could undermine the role of the media as a watchdog of democracy.
- **Public Consultation Process:** Some stakeholders feel that the public consultation process for the Bill has not been inclusive or transparent enough. There are concerns that the voices of smaller players, civil society, and marginalized groups might not be adequately considered in the final version of the Bill.

## WHAT NEEDS TO BE DONE FOR A MORE COMPATIBLE LEGISLATION WITHOUT BREACH OF RIGHTS?

- **Clear and Precise Definitions:** The Bill should include clear and precise definitions of key terms such as "broadcasting," "OTT broadcasting service," and "content regulation." Ambiguity in these definitions can lead to overreach and misinterpretation
  - The Audiovisual Media Services Directive (AVMSD) in EU provides specific definitions for different types of services, including linear and non-linear (on-demand) services, to ensure clarity and prevent regulatory overlap.
- **Safeguards Against Government Overreach:** Introduce checks and balances to prevent excessive government control over content regulation. Independent regulatory bodies should be empowered to oversee content-related matters, ensuring decisions are made transparently and without political interference.
  - The Office of Communications (Ofcom) in UK operates independently of the government and is responsible for regulating broadcasting content. It ensures that regulations are applied fairly and impartially, safeguarding free speech and media independence.
  - The Australian Communications and Media Authority (ACMA) operates independently and provides oversight on content standards, ensuring that content regulation is balanced and respects freedom of expression.
- **Protection of Free Speech and Editorial Independence:** Explicitly safeguard freedom of speech and editorial independence in the Bill. There should be provisions that prevent the misuse of content regulation to stifle dissent or control narratives.
  - The First Amendment to the U.S. Constitution guarantees freedom of speech, and the Federal Communications Commission (FCC) operates under strict guidelines to ensure that content regulation does not infringe on these rights.
  - The Canadian Radio-television and Telecommunications Commission (CRTC) upholds the principle of editorial independence and ensures that regulatory measures do not impede the free flow of information.
- **Proportionality and Necessity in Content Regulation:** Content regulation should be proportionate and necessary, targeting only content that poses significant risks such as hate speech, incitement to violence, or public harm. Overregulation of content that does not meet these criteria should be avoided.
  - The Interstate Treaty on Broadcasting and Telemedia (Rundfunkstaatsvertrag) in Germany regulates content based on principles of proportionality, focusing on harmful content while ensuring that general content remains free from undue restrictions.

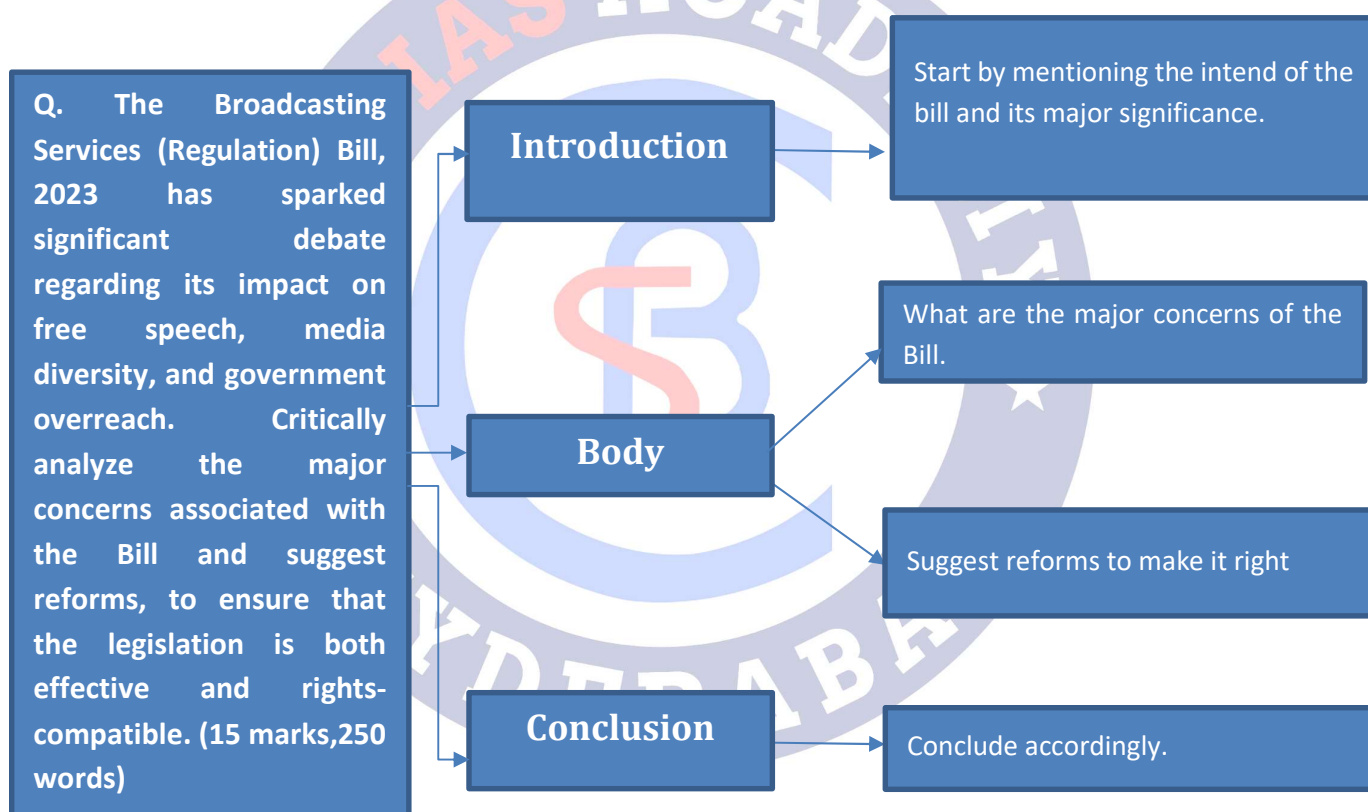
- The Broadcasting Complaints Commission of South Africa (BCCSA) enforces content standards that focus on preventing harm, while allowing for a wide range of viewpoints and content that reflects diverse perspectives.
- **Inclusive Public Consultation:** The consultation process should be more inclusive, ensuring that all stakeholders, including civil society, smaller broadcasters, and marginalized groups, have a voice in shaping the Bill. The feedback process should be transparent and comprehensive.
  - The New Zealand Broadcasting Standards Authority (BSA) engages in broad public consultation when drafting or revising regulations, ensuring that the voices of diverse communities are heard and considered.
  - In Norway, public consultation is a mandatory step in the legislative process for media regulation, ensuring that the final legislation reflects a broad consensus.
- **Balanced Regulation for OTT Platforms:** Tailor regulations for OTT platforms to ensure they are not overburdened by requirements designed for traditional broadcasters. This can include self-regulation under a framework that ensures accountability without stifling creativity.
  - The AVMSD of EU allows for lighter-touch regulation of on-demand services, recognizing their different nature from traditional broadcasting, while still ensuring that essential protections are in place.
  - The Infocomm Media Development Authority (IMDA) of Singapore applies a differentiated approach to regulating OTT content, with a focus on self-regulation, while imposing stricter rules only for content that could cause significant harm.
- **Data Privacy and Protection:** Ensure that the subscriber management system includes strong data privacy protections. This should include clear guidelines on data collection, usage, storage, and the rights of individuals over their data.
  - The General Data Protection Regulation (GDPR) of EU sets stringent standards for data protection, ensuring that personal data collected by broadcasters or platforms is handled with the highest standards of privacy and security.
  - Japan's Act on the Protection of Personal Information (APPI) provides robust data protection standards that broadcasters must adhere to, ensuring that personal information is handled with care and respect for individual privacy.
- **Independent Oversight and Appeals:** Establish an independent body to oversee the implementation of the Bill and handle appeals against decisions made by the regulatory authorities. This body should be empowered to review and reverse decisions that are deemed to infringe on rights.

- The Conseil supérieur de l'audiovisuel (CSA) in France operates independently to oversee broadcasting and has mechanisms for public complaints and appeals, ensuring that regulatory decisions are fair and just.

## PRACTICE QUESTION

**Q. The Broadcasting Services (Regulation) Bill, 2023 has sparked significant debate regarding its impact on free speech, media diversity, and government overreach. Critically analyze the major concerns associated with the Bill and suggest reforms, to ensure that the legislation is both effective and rights-compatible. (15 marks,250 words)**

## APPROACH



## MODEL ANSWER

The Broadcasting Services (Regulation) Bill, 2023, aims to modernize the regulatory framework governing broadcasting services in India. While it seeks to enhance the ease of doing business in the broadcasting sector, the Bill has raised concerns related to government overreach, potential censorship, and the suppression of free speech.

### MAJOR CONCERNS ASSOCIATED WITH THE BILL:

- **Ambiguity in Definitions:** The Bill's broad definitions, such as "broadcasting" and "OTT broadcasting service," could lead to interpretative challenges, resulting in inconsistent enforcement and potential misuse.
- **Government Overreach and Control:** The Bill grants significant power to the Central Government, particularly in content regulation. This raises concerns about potential censorship and the stifling of dissenting voices.
- **Impact on Free Speech and Media Independence:** By mandating content regulation across all broadcasting services, including OTT platforms and digital creators, the Bill could undermine free speech and editorial independence.
- **Challenges for Smaller Broadcasters:** The requirement for mandatory registration and content evaluation committees could pose financial and bureaucratic challenges for smaller or independent broadcasters.
- **Impact on Media Diversity:** The stringent regulations could lead to a concentration of media ownership, reducing the diversity of voices and perspectives in the public domain.
- **Privacy Concerns:** The mandatory subscriber management system raises issues related to the privacy of user data, with potential risks of misuse or unauthorized access.

### REFORMS TO ENSURE EFFECTIVE AND RIGHTS-COMPATIBLE LEGISLATION:

- **Clear and Precise Definitions:** The Bill should adopt specific and clear definitions to prevent overreach. For example, the European Union's Audiovisual Media Services Directive (AVMSD) offers clear definitions for different services, preventing regulatory overlap and ensuring legal certainty.
- **Safeguards Against Government Overreach:** The Bill should incorporate checks and balances by empowering independent regulatory bodies to oversee content-related matters. The UK's Ofcom and Australia's ACMA operate independently, ensuring that content regulation is fair, transparent, and free from political influence.
- **Protection of Free Speech and Editorial Independence:** The Bill should explicitly safeguard freedom of speech and editorial independence. Drawing from the U.S. Constitution's First Amendment and Canada's CRTC, the Bill should include provisions that prevent the misuse of content regulation to control narratives or suppress dissent.
- **Proportionality and Necessity in Content Regulation:** The content regulation framework should be based on principles of proportionality, focusing on harmful content like hate

speech or incitement to violence. Germany's Rundfunkstaatsvertrag and South Africa's BCCSA emphasize proportionate regulation, ensuring that general content remains free from undue restrictions.

- **Inclusive Public Consultation:** The legislative process should involve broad public consultation, ensuring that the voices of all stakeholders, including civil society and marginalized groups, are heard. New Zealand's BSA and Norway's mandatory public consultation process can serve as models for ensuring that the final legislation reflects a broad consensus.
- **Balanced Regulation for OTT Platforms:** The Bill should recognize the unique nature of OTT platforms and avoid overburdening them with regulations designed for traditional broadcasters. The EU's AVMSD and Singapore's differentiated approach to OTT content regulation could provide useful frameworks.
- **Strong Data Privacy Protections:** The Bill should ensure that subscriber management systems adhere to stringent data privacy standards, as seen in the EU's GDPR and Japan's APPI, to protect user data from misuse.
- **Independent Oversight and Appeals:** An independent body should be established to oversee the implementation of the Bill and handle appeals against regulatory decisions. France's CSA serves as an effective model for ensuring that regulatory decisions are fair, transparent, and subject to scrutiny.

The Broadcasting Services (Regulation) Bill, 2023, has the potential to significantly reshape the Indian broadcasting landscape. By addressing the concerns related to government overreach, free speech, and media diversity, the legislation can achieve its regulatory goals while upholding the principles of democracy and freedom.

## 10. MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (MGNREGA)

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Social justice > Welfare Schemes > Rural development

#### IN NEWS:

- The Economic Survey 2024 highlighted a significant decline in the disbursement of unemployment allowances under MGNREGA. Only ₹90,000 was released in 2023-24 compared to ₹7.8 lakh in 2022-23. This has been attributed to states underreporting the demand for work, possibly to avoid paying unemployment allowances.

#### MORE ON NEWS:

- The Economic Survey 2024 also highlighted that MGNREGA work demand is not a reliable indicator of rural distress. It pointed out **discrepancies in fund usage** across states, noting that states with lower poverty rates like **Tamil Nadu and Kerala** used a disproportionately **high share of MGNREGA funds**, while states with higher poverty levels, like Bihar and Uttar Pradesh, did not utilize as much as expected.
- The weak correlation between poverty levels and the generation of person-days under MGNREGA suggests that factors like **state capacity and wage setting significantly influence the scheme's implementation**

#### MGNREGA:

- Mahatma Gandhi National Rural Employment Guarantee Act was enacted in 2005 with the primary objective of **guaranteeing 100 days of wage employment per year** to rural households.
- It aims at addressing the causes of chronic poverty through the works that are undertaken and thus ensuring sustainable development.

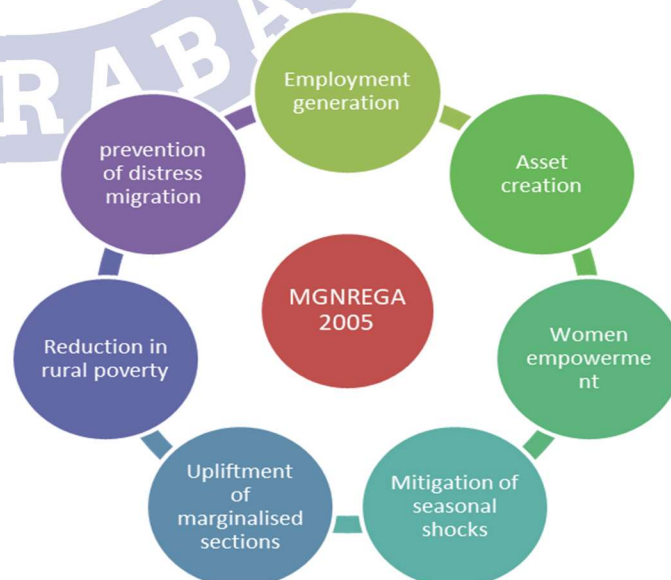
#### KEY FEATURES:

- **Legal right to work:** The Act gives legal guarantee of wage employment to the adult members of rural households who are willing to do unskilled manual labour subject to a maximum of 100 days per household.

- **Time bound guarantee of work:** According to **Section 7(1)** of MGNREGA, 2005, “If a person applying for employment under the scheme is not employed **within 15 days**, he shall be entitled to a daily **unemployment allowance**.” The law states that this allowance shall be **one-fourth** of the wage rate for the first 30 days of the financial year and half of the wage rate for the remainder.
- **Eligibility:** Anyone above the age of 18 years, residing in a rural area and willing to do unskilled work can request for **job card**. At least **one third beneficiaries have to be women**.
- **Nature of works undertaken:** The Act provides a list of works that can be undertaken to generate employment. They predominantly include those related to water conservation, drought proofing, land development, and flood control and protection works.
- **Decentralized planning:** Panchayati Raj Institutions are primarily responsible for planning, implementation and monitoring of the works that are undertaken. Gram sabhas must recommend the works that are to be undertaken and at least 50% of the works must be executed by them.
- **Social audits:** **Section 17 (A)** gives the right to the citizen to conduct social audit of all works and expenditure incurred under MGNREGA. Also, all accounts and records relating to the Scheme should be available for public scrutiny.
- **Funding:** Funding is **shared between the centre and the states**. There are three major items of expenditure – wages (for unskilled, semi-skilled and skilled labour), material and administrative costs:
  - The central government bears 100% of the cost of unskilled labour.
  - 75% of the cost of semi-skilled and skilled labour.
  - 75% of the cost of materials and 6% of the administrative costs.
- **Work site facilities:** All work sites should have facilities such as crèches, drinking water and first aid. If the work is provided beyond 5 kms a travel allowance of 10% of the wage needs to be paid.

### SIGNIFICANCE OF MGNREGA:

- **Employment generation**
  - MGNREGA is one of the largest work guarantee programmes in the world. It plays a significant role in ensuring livelihood for people in rural areas.
- **Asset creation:**



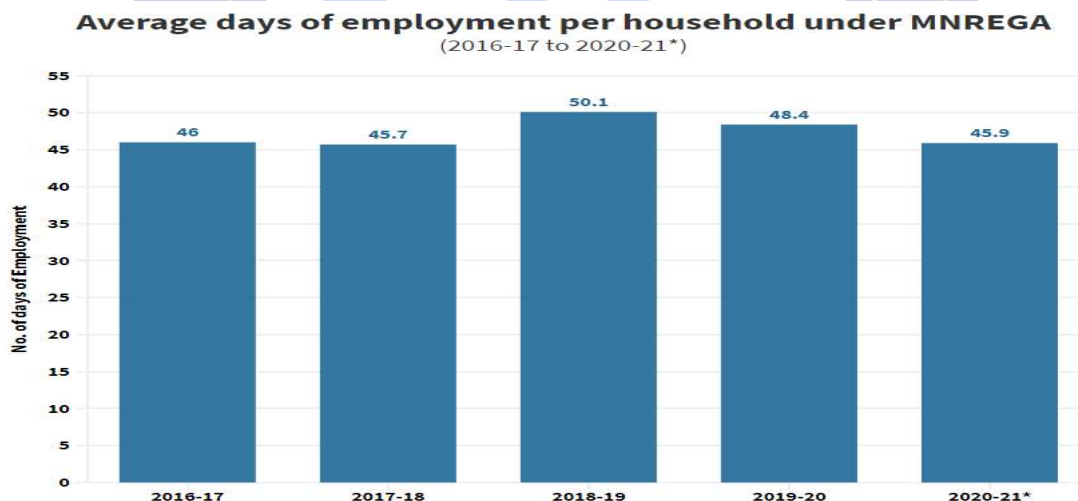


- It leads to strengthening the rural economy through the creation of **infrastructure assets**, which in turn **aids in rural development**.
- **Economic revival:**
  - MGNREGA wages improve the purchasing power and help sustain rural demand in the country. Hence it has a vital role to play in the revival of India's post-covid rural economy. This is why **Uttarakhand government** increased the number of working days guaranteed under MGNREGA **from 100 to 150 days**.
- **Inclusive development:**
  - MGNREGA has assured the participation of vulnerable sections such as **women, Scheduled Castes and Scheduled Tribes (SCs/STs)** and other traditionally marginalized sections of society.
- **Prevents distress migration:**
  - As it assures 100 days of employment, it provides a **suitable alternative for people who have seasonal employment**, like the rural agricultural labourers during off-seasons.
- **Enhance social cohesion:**
  - MGNREGA helps to enhance the social capital, as men and women of different castes and religion work together and socialise with each other across communities.
- **Encourage skill development:**
  - Since 2019, the central government had decided to pay a daily allowance of up to Rs 250 to a casual labourer undergoing skill training for specialised work. The government also undertakes occasional on-site skill training modules on various fields such as masonry and plumbing.
- **Manage calamities:**
  - MGNREGA acts as a safety net for the poorest and most vulnerable population in the country. This enhances their capacity to manage calamities, be it natural or manmade.
- **Promotes grassroot democracy:**
  - There is an emphasis on strengthening the process of **decentralisation** through giving a significant role to **Panchayati Raj Institutions (PRIs)** in planning and implementing these works.

### CHALLENGES:

- **Insufficient Budget Allocation:**
  - A significant increase in demand for MGNREGA works has been observed, but the government has not matched this demand with proportional funding.

- For the financial year 2024-25, ₹86,000 crore has been allocated to MGNREGS, which is ₹26,000 crore more than the previous year's ₹60,000 crore. However, this allocation is still **₹19,297 crore less than the actual expenditure** of ₹1.05 lakh crore in 2023-24, according to data from the Union Ministry of Rural Development.
- **Low wage rate:**
  - Despite several judicial interventions, MGNREGA wage rates in many states continue to be less than the corresponding state minimum wages. The low wage rates have resulted in lack of interest among workers in working for MGNREGA schemes.
  - For example, in 2023, MGNREGA wages in states like Bihar, Jharkhand, and Madhya Pradesh were significantly lower than the respective state minimum wages.
- **Actual working days:**
  - While the mandate is to provide at least 100 days of wage employment, the data available on the official portal reveals that the average days of employment provided per household typically **range between 45 to 50 days**.



- **Workers penalised for administrative lapses:**
  - The ministry withholds wage payments for workers of states that do not meet administrative requirements within the stipulated time period (Eg: submission of the previous financial year's audited fund statements). There is no logical or legal explanation as to why workers would be penalised for such administrative lapses.
- **Delay in payment of wages:**
  - The Standing Committee on Rural Development and Panchayati Raj in its report noted that most states have failed to disburse wages within 15 days as mandated by MGNREGA. In addition, workers are not compensated for a delay in payment of wages.

- **Non-payment of unemployment allowances:**
  - Most states do not pay an unemployment allowance when work is not given on demand. The non-issuance of dated receipts of demanded work prevents workers from claiming an unemployment allowance.
- **Large number of incomplete works:**
  - There has been a delay in the completion of works under MGNREGA and inspection of projects has been irregular.
- **Poor quality of assets created:**
  - There is no monitoring mechanism to ensure that assets created meet the required standards. Also, there is limited incentive for workers or local governing bodies to maintain the assets created under MGNREGA.
- **Technological Roadblocks:**
  - The Standing Committee on Rural Development and Panchayati Raj reported that as of November 2023, **14% of MGNREGA job card holders were not Aadhaar-enabled**, leading to challenges in KYC compliance and attendance marking via the National Mobile Monitoring System. Issues like **poor internet connectivity and smartphone access** further hindered wage payments.
- **Social Audits:**
  - The Act mandates gram sabhas to conduct regular social audits of projects under the scheme within the gram panchayat. The Standing Committee on Rural Development and Panchayati Raj observed that in 2023-24, **only 32% of gram panchayats had been audited**. States and UTs such as **Goa, Andaman and Nicobar and Puducherry are yet to establish a Social Audit Unit**.
- **Corruption:**
  - There are several issues related to existence of fake job cards, inclusion of fictitious names, missing entries and delays in making entries in job cards. Also, instances of corruption in the implementation of MGNREGA has been reported from several states.
  - For instance, In 2018, Rural Development and Panchayath Raj (RDPR) report pointed out that in FY18 alone, 596 cases were registered against officials and non-officials for violation of rules and guidelines.
- **Too much centralization:**
  - The real-time MIS-based implementation and a centralised payment system has left the representatives of the Panchayati Raj Institutions with literally no role in implementation, monitoring and grievance redress of MGNREGA schemes.

### WAY FORWARD:

- **Ensure 100 Days of Work:** State governments must guarantee the provision of 100 days of employment, backed by sufficient fund allocation.
- **Frequent Monitoring:** Increase the frequency of monitoring by National Level Monitors, with states taking appropriate actions based on recommendations.
- **Urban MGNREGA:** Consider implementing a right to employment in urban areas, similar to rural MGNREGA. For example, Rajasthan's Urban Employment Guarantee Scheme.
- **Punish Offenses:** Make offenses like improper job card handling punishable under the Act.
- **Increase Female Participation:** Boost female participation by raising awareness about MGNREGA, as it can significantly improve household living standards.
- **Provisions for People with Disabilities:** Identify special works and issue specific job cards for people with disabilities to ensure their participation.
- **Emphasize Skilled Work:** Focus on skilled and semi-skilled work to meet the diverse developmental needs of states.
- **Capacity Building:** Regularly train and build the capacity of PRIs' elected representatives and functionaries to enhance their involvement in MGNREGA implementation.

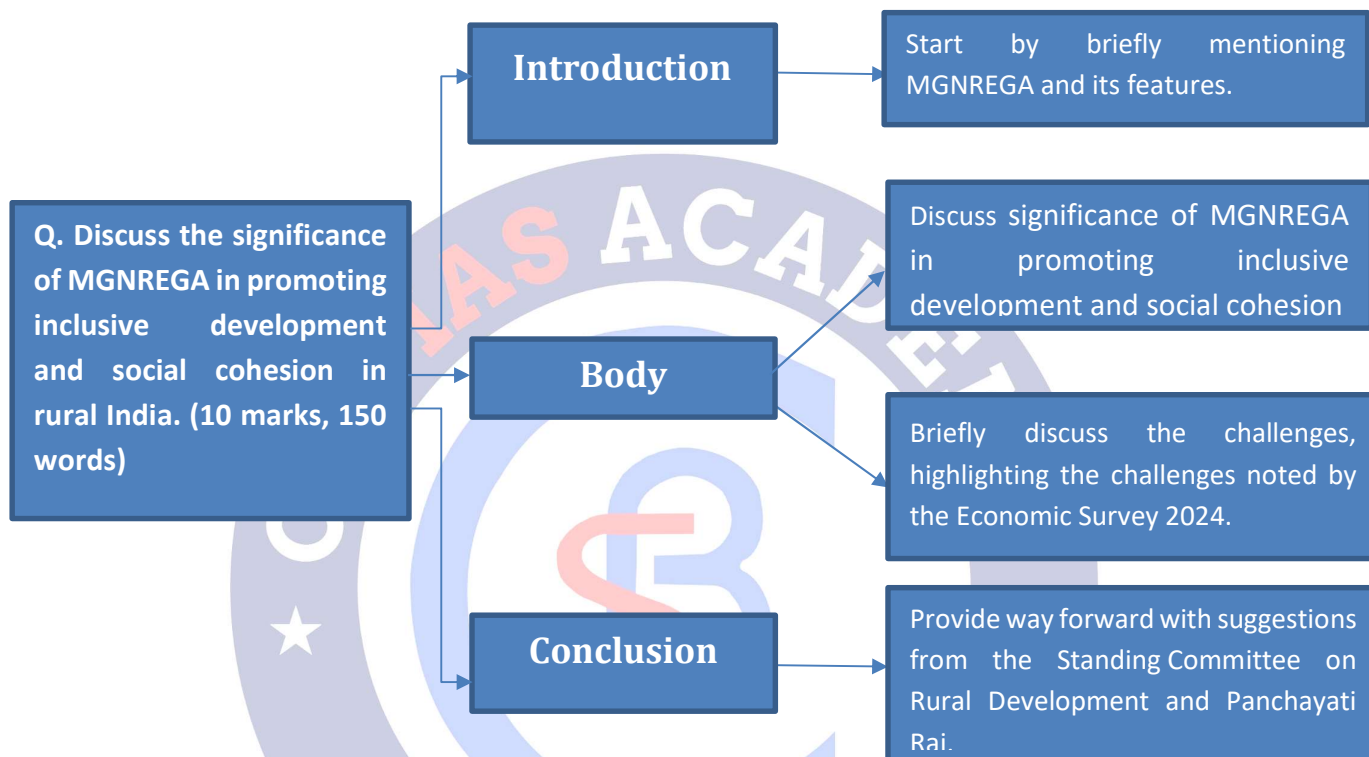
The Standing Committee on Rural Development and Panchayati Raj made several recommendations to improve MGNREGA:

- **Budget Alignment:** Ensure budget allocations match previous years' expenditures to prevent delays in wage and material payments.
- **Wage Payment Process:** Streamline the wage payment process and use physical pay slips for beneficiaries with technological challenges.
- **Wage Rate Revision:** Update wage rates to reflect current inflation and living costs, suggesting an increase to ₹375 per day.
- **Technology and Access:** Address technological issues by improving awareness and providing alternative authentication methods until Aadhaar-related processes are fully reliable.
- **Unemployment Allowances:** Improve the disbursement of unemployment allowances and compensation for delayed payments.
- **Increase Working Days:** Raise the guaranteed working days from 100 to 150 to incentivize participation.
- **Strengthen Social Audits:** Enhance the implementation of social audits to ensure transparency and accountability.

## PRACTICE QUESTION

Q. Discuss the significance of MGNREGA in promoting inclusive development and social cohesion in rural India. (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), established in 2005, aims to provide **100 days** of guaranteed wage employment per year to **rural households**. It is designed to alleviate poverty by offering **unskilled manual labor** opportunities, thereby creating sustainable rural infrastructure and enhancing livelihoods. Key features include the legal right to work, decentralized planning through Panchayati Raj Institutions, social audits for transparency, and a funding model shared between the central and state governments.

### Significance of MGNREGA in Inclusive Development

- **Empowerment of Vulnerable Sections:** MGNREGA empowers marginalized communities, particularly women, Scheduled Castes (SCs), and Scheduled Tribes (STs), ensuring their inclusion in wage employment. The scheme mandates that one-third of the beneficiaries be women, promoting gender equality and economic independence.

- **Poverty Alleviation:** By guaranteeing 100 days of employment, MGNREGA plays a crucial role in poverty alleviation. The scheme enhances the purchasing power of rural households, contributing to economic stability and reducing poverty.
- **Reduction of Distress Migration:** MGNREGA reduces the need for rural workers to migrate to urban areas by providing stable employment during off-seasons. This helps maintain rural livelihoods and eases the pressure on urban infrastructure.

### Promotion of Social Cohesion through MGNREGA

- **Community Building:** MGNREGA promotes social cohesion by bringing together people from diverse backgrounds to work on common projects. This interaction fosters mutual respect and understanding, breaking down social barriers in rural areas.
- **Strengthening Grassroots Democracy:** Through decentralized planning and the involvement of Panchayati Raj Institutions, MGNREGA empowers local communities to take charge of their development. This participatory approach strengthens grassroots democracy and ensures that projects align with local needs.
- **Enhancing Social Capital:** MGNREGA fosters the development of social capital by encouraging collective action and cooperation among community members. Working together on projects such as water conservation and infrastructure development builds trust and networks within the community, which are essential for long-term social cohesion and resilience.

### Challenges :

MGNREGA faces several challenges that hinder its effectiveness. The **Economic Survey 2024** highlighted a significant **decline in the disbursement of unemployment allowances**, with only ₹90,000 released in 2023-24 compared to ₹7.8 lakh in the previous year. The survey also pointed out that MGNREGA work demand is not a reliable indicator of rural distress, revealing discrepancies in **fund usage across states**. Further challenges include **insufficient budget allocation, low wage rates, delayed payments, technological barriers, and poor asset quality due to inadequate monitoring**.

To overcome these challenges, the **Standing Committee on Rural Development and Panchayati Raj** has recommended **aligning budget allocations with actual expenditures, revising wage rates to reflect inflation, streamlining wage payments, increasing guaranteed working days, and strengthening social audits**. Implementing these recommendations will enhance MGNREGA's effectiveness in promoting inclusive development and social cohesion in rural India.

## 11. CORPORATE SOCIAL RESPONSIBILITY (CSR)

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > Governance > Aspects of Good Governance > Corporate Governance

#### REFERENCE NEWS:

- In FY23, education continued to dominate corporate social responsibility (CSR) expenditure by companies in India, receiving ₹10,085 crore, the largest amount ever recorded, according to government data. This spending represents about **one-third of the total CSR** expenditure for the year.

#### MORE ON NEWS:

- However, the focus on vocational skills, a crucial area for workforce readiness, received much less attention. Companies spent ₹1,164 crore on vocational training under CSR in FY23, which, while slightly higher than the ₹1,033 crore spent the previous year, still reflects a disparity compared to the broader education sector.
- Also, in the Union Budget 2024, the government proposed an internship scheme to create opportunities for 1 crore youth over five years. Top 500 companies, selected based on their CSR spending, are encouraged to allocate **10% of their CSR funds to cover internship costs**. Interns will receive a monthly allowance of ₹5,000, with an additional ₹6,000 as one-time assistance, with companies bearing the training expenses

#### WHAT IS CSR?

- As per **United Nations Industrial Development Organization** “**Corporate Social Responsibility** is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders”

#### EVOLUTION OF CSR IN INDIA

- Before Independence the **concept manifested in the form of charitable acts of businessmen and philanthropists.**
- Gandhian model of trusteeship encourages responsible behaviour towards employees and stakeholders as business entities were seen to be operating in public trust.

- In 2009, **Corporate Voluntary Guidelines released** to encourage corporate to voluntarily achieve high standards of corporate governance
- In 2012, SEBI mandates top 100 companies by market capitalization to **file Business Responsibility Report** based on National Voluntary Guidelines
- In 2013, Indian government becomes the first to mandate CSR under **Section 135 of the Companies Act, 2013.**

### **ABOUT THE CSR PROVISIONS UNDER THE COMPANIES ACT**

- Under Section 135 of the Companies Act, 2013, **every company with net worth of Rs 500 Crore or a turnover of Rs 1000 Cr or net profits of Rs 5 Crore** is required to invest **at least 2% of its average net profit for the immediately preceding 3 financial years on CSR activities in India**
- **Those companies are** also mandated to constitute a **CSR Committee** consisting of at least 3 directors including an independent director.
- This committee will formulate the CSR policies for the company.
- CSR is also **applicable to branch and project offices of a foreign company in India.**
- **Amendments made in 2019:**
  - **Any unspent annual CSR funds must be transferred to one of the funds** under Schedule 7 of the Act (e.g., PM Relief Fund) within six months of the financial year.
  - **Non-compliance with CSR norms is made a jailable offence** for key officers of the company, apart from hefty fines on the officer in default.
- **Amendments made in 2020:**
  - Companies with a CSR liability of up to Rs 50 lakh a year are **exempted from setting up CSR Committees.**
  - Further, companies which spend any amount in excess of their CSR obligation in a financial year can set off the excess amount towards their CSR obligations in subsequent financial years.

### **ACTIVITIES THAT CAN BE UNDERTAKEN UNDER CSR (LISTED UNDER SCHEDULE VII OF THE COMPANIES ACT)**

- Eradicating hunger, poverty and malnutrition.
- Promoting education and enhancing vocational skills.
- Promoting gender equality.
- Ensuring environmental sustainability, contributing to Clean Ganga Fund.
- Protection of national heritage, art and culture.
- Measures for the benefit of armed forces veterans, war widows and their dependents.
- Promoting rural sports, Paralympic and Olympic sports.
- Contributing to technology incubators.



- Slum area development, rural area development.
- Contribution to PM's National Relief Fund.

### KEY FEATURES OF THE COMPANIES (CORPORATE SOCIAL RESPONSIBILITY POLICY) AMENDMENT RULES, 2021:

- **Exclusion from CSR activities:**
  - Activities undertaken in pursuance of normal course of business of the company
  - Activities undertaken outside India, except training of National or International level Indian sportspersons.
  - Contribution of any amount to any political party
  - Activities benefitting employees of the company, as under Code on Wages, 2019.
  - Activities carried out for fulfilment of any other statutory obligations
- **Mandatory registration:** Entities must register with the Central Government and file the CSR-1 Form electronically with the Registrar of Companies from April 1, 2021.
- **Engagement of external organizations:** Permitted for design, evaluation, capacity building, and monitoring of CSR projects.
- **Annual action plan:** CSR committees must formulate and recommend an annual action plan to the company board.
- **Cap on administrative overheads:** Administrative overheads should not exceed 5% of the total CSR expenditure for the financial year.
- **Surplus utilization:** Surplus from CSR projects cannot be used for business profits and must be reinvested into the same CSR project or transferred to a specified fund.
- **Impact assessment: Companies with CSR obligations of ₹10 crore or more over the preceding 3 years** must hire an independent agency to assess projects with outlays of ₹1 crore or more.
- **Mandatory disclosure:** CSR projects must be disclosed on the company's website to ensure accountability and compliance.

### BENEFITS OF CSR

- **Benefits for the company**
  - **Business reputation and image building:**
    - CSR is a tool for companies to meet aspirations of the community and in turn obtain a license to operate from them or gain their loyalty and trust.
  - **Employee retention and satisfaction**
    - CSR initiatives increase employee morale and create a sense of belongingness in them.
  - **Strengthening the potential market:**
    - A healthy business can only succeed in a healthy society.

- Thus, it is in the best interest of a company to improve the socio-economic health of society through welfare spending.
- **Benefits for the society:**
  - **Improves basic amenities:**
    - The community benefits through various welfare initiatives taken by companies under CSR.
  - **Contributes to overall peace and harmony:**
    - CSR fosters social trust and inspires ethical conduct amongst employees and members of society.
  - **Helps to reduce inequality in the society:**
    - CSR spending on vulnerable sections leads to their empowerment >> brings inclusive growth
- **Benefits for the government:**
  - **Reduced pressure on government exchequer:**
    - CSR spending act as supplementary resources for welfare spending >> thus reduces the burden on state-led welfare spending
  - **Attracts investment:**
    - Better utilization of CSR spending can **pacify the people's negative attitude towards business friendly policies** >> thus better implementation of pro-business enactments >> attracts business to India

### CONCERNS/ CHALLENGES

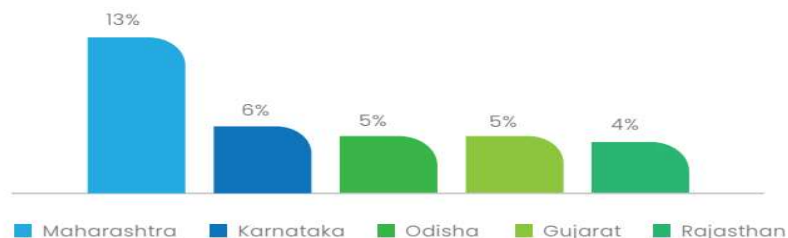
- **Skewed pattern of spending**
  - Recent data highlights a continued skewed pattern in CSR spending in India. In FY23, around **40% of CSR funds were directed toward education and healthcare**. Education alone received a record ₹10,085 crore, which is the highest ever recorded.
  - However, the allocation towards **eradication of hunger and malnutrition** remained significantly lower, with just around **5% of CSR funds** being directed towards this critical area. This is particularly concerning given that nearly 40% of Indian children continue to suffer from malnutrition
- **Affects business interests:**
  - CSR is criticized as a tool to tax corporates which already face high taxation in the country. This can make India unattractive for business.
- **Wide gap between public sector companies and private sector companies:**
  - In FY23, the distribution of CSR spending between Public Sector Undertakings (PSUs) and Non-PSUs remained skewed. **Non-PSUs** continued to dominate the CSR landscape, contributing **84% of the total CSR expenditure**, while **PSUs accounted**

for the remaining 16%. This trend underscores the significant difference in CSR investment between these two sectors

- **Regional disparity**

- CSR spending is concentrated in states of Maharashtra, Gujarat, Andhra Pradesh etc., while North Eastern states escaped the attention of corporates.

**States Receiving the Highest CSR Funding**



\*Average of CSR fund received from FY 2014-15 to FY 2021-22

- **Issues with the legislation:**

- The categories included under CSR are vaguely worded and lack clarity.
- Besides, the **act does not spell out any enforcement mechanism**
- Penal provisions introduced in 2019 are **not in harmony with the spirit of CSR**, because **CSR is a means to partner corporates for social development**

- **Difficulty in distinguishing social responsibility from commercial interests**

- Companies often undertake measures for employee welfare and place these under CSR. It is here that the line between CSR and company's interests gets blurred.

- **Malpractices:**

- It is found out that companies made donations to charitable trusts, which are well known and then received them back after deduction of minor commissions

- **Reduction in social spending:**

- It was observed that **companies that spent more than 2% on social responsibility reduced their spending** after the legislation came into force. This was an unintended consequence of the CSR legislation.

### WAY FORWARD

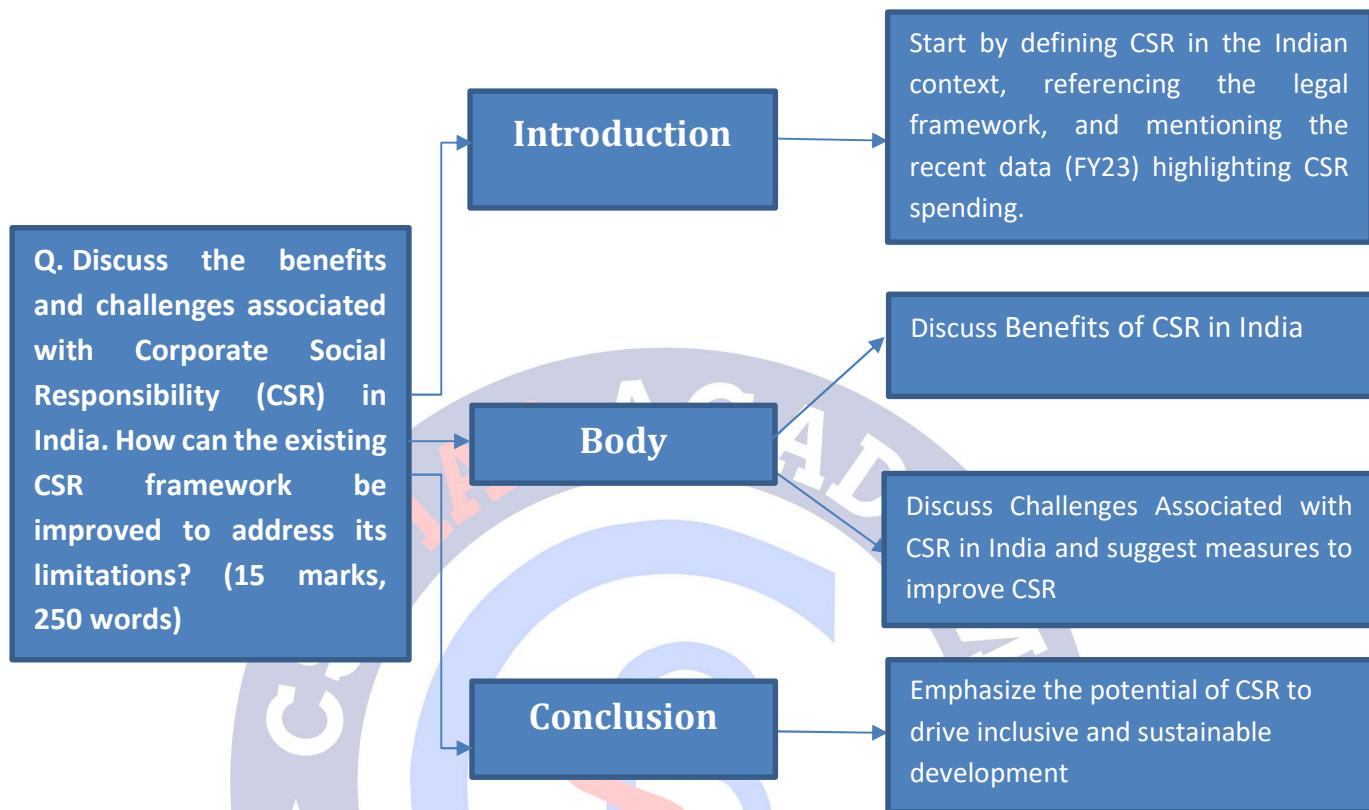
- **Relaxation and incentives:** Government should further provide relaxation and incentives in corporate tax to corporates complying with CSR regulations
- **Decriminalize non-compliance** Non-compliance by corporates should be decriminalised and made a civil offence
- **Ensure collaboration:** Facilitating collaboration between NGOs, agencies involved in environmental and social work will enable better utilization of CSR funds

- **Sharing of best practices:** Enabling exchange and sharing of best practices between corporates through CSR summits.
- **Monitoring:** CSR activities and projects needs to be monitored periodically to prevent fraudulent activities and complete project within stipulated time.
- **Focusing on neglected areas:** Encouraging corporates to spend in hitherto neglected areas such as sports, conservation of heritage etc.
- **Adopt the recommendations of committee chaired by Injeti Srinivas:**
  - The expenses towards CSR should be eligible for deduction in the computation of taxable income.
  - CSR obligation **shall lie only after companies have been in existence for three years.**
  - A provision to **carry forward unspent CSR balance** for three to five years
  - CSR should not be used as a “means of resource-gap funding for government schemes”.
  - **Aligning Schedule VII of the Companies Act** with the United Nations **Sustainable Development Goals.**
  - The companies having CSR-prescribed amount below Rs.50 lakh may be **exempted from constituting a CSR Committee.**
  - **Developing a CSR exchange portal** to connect contributors, beneficiaries and agencies, allowing CSR in social benefit bonds and promoting social impact companies.
  - Board of the company has to assess the credibility of an implementation agency, which have to be registered with the MCA to carry out CSR activities.

## PRACTICE QUESTION

Q. Discuss the benefits and challenges associated with Corporate Social Responsibility (CSR) in India. How can the existing CSR framework be improved to address its limitations? (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Corporate Social Responsibility (CSR) in India is a legally mandated framework that requires companies to contribute to social and environmental causes. The legal basis for CSR in India was established under Section 135 of the Companies Act, 2013. Recently, in FY23, CSR spending in education reached ₹10,085 crore, the highest ever, emphasizing the focus on this sector. However, challenges like skewed spending patterns and regional disparities persist, raising concerns about the effectiveness of the CSR framework.

### Benefits of CSR in India

- **Business Reputation and Image Building:** CSR helps companies build a positive image and reputation, earning the trust and loyalty of consumers and communities. This can result in a "social license to operate," which is crucial for long-term business sustainability.
- **Employee Retention and Satisfaction:** Engaging in CSR activities enhances employee morale and creates a sense of belonging, leading to higher retention rates. Employees tend to be more committed to companies that contribute to social causes.

- **Strengthening the Potential Market:** By improving the socio-economic conditions of communities, CSR helps create a healthier and more prosperous society, which in turn benefits businesses. A robust market can only exist in a stable and thriving society.
- **Benefits for Society:** CSR initiatives improve basic amenities, contribute to social harmony, and help reduce inequality by focusing on vulnerable sections of society. For instance, CSR spending on education and healthcare has significantly improved access to these essential services.
- **Benefits for Government:** CSR reduces the burden on government welfare spending by supplementing resources for social initiatives. This allows the government to focus on other critical areas of development.

### Challenges Associated with CSR in India

- **Skewed Pattern of Spending:** Recent data shows that CSR spending is heavily concentrated on education and healthcare, while critical areas like hunger eradication receive minimal attention. This uneven distribution fails to address some of the most pressing social issues, such as malnutrition, which affects nearly 40% of Indian children.
- **Wide Gap Between Public and Private Sector Spending:** In FY23, Non-PSUs accounted for 84% of the total CSR expenditure, while PSUs contributed only 16%. This significant disparity highlights the need for more balanced participation across sectors.
- **Regional Disparity:** CSR spending is concentrated in states like Maharashtra, Gujarat, and Karnataka, while the North Eastern states receive minimal attention. This regional imbalance hinders inclusive development across the country.
- **Issues with Legislation:** The categories under CSR are often vaguely defined, leading to confusion and inconsistent implementation. Additionally, the lack of a strong enforcement mechanism weakens the impact of CSR initiatives.
- **Difficulty in Distinguishing Social Responsibility from Commercial Interests:** Companies sometimes blur the lines between CSR and their business interests by categorizing employee welfare measures as CSR activities. This undermines the true spirit of corporate social responsibility.
- **Reduction in Social Spending:** After the CSR mandate was introduced, some companies that previously spent more than 2% on social causes reduced their contributions to meet only the legal requirement. This unintended consequence weakens the overall impact of CSR.

## Improving the CSR Framework in India

- **Relaxation and Incentives:** The government should offer tax incentives and relaxations to companies that go beyond the minimum CSR requirements. This could encourage more robust participation in social initiatives.
- **Decriminalize Non-Compliance:** Non-compliance with CSR norms should be treated as a civil offense rather than a criminal one. This approach aligns better with the voluntary nature of CSR and encourages companies to engage without fear of punitive measures.
- **Ensure Collaboration:** Facilitating collaboration between companies, NGOs, and social agencies can improve the effectiveness of CSR projects. Joint efforts can lead to more impactful and sustainable outcomes.
- **Sharing of Best Practices:** Organizing CSR summits and forums for companies to share their best practices can help improve the quality and reach of CSR initiatives across the board.
- **Focusing on Neglected Areas:** Corporates should be encouraged to allocate funds to neglected sectors such as sports, heritage conservation, and environmental sustainability. This would ensure a more balanced and comprehensive approach to social responsibility.
- **Adopting Committee Recommendations:** Implementing recommendations from the Injeti Srinivas committee, such as allowing CSR expenses to be tax-deductible and exempting smaller companies from forming CSR committees, can enhance the framework's flexibility and effectiveness.
- **Monitoring and Accountability:** Periodic monitoring of CSR projects is essential to prevent fraud and ensure timely completion. Additionally, mandatory disclosures on company websites can enhance transparency and accountability.

CSR in India has made significant strides since its inception, contributing to various social and environmental causes. However, challenges like skewed spending, regional disparities, and legislative issues persist. By improving the existing CSR framework through incentives, collaboration, and better monitoring, India can harness the full potential of corporate social responsibility to **achieve inclusive and sustainable development**.

## 12. INDIA - JAPAN RELATIONS

### IMPACT ANALYSIS

#### Syllabus:

GS 2 > International relations > India and Global Powers > India-Japan

#### REFERENCE NEWS:

- Recently, the third India-Japan 2+2 ministerial meeting, held in New Delhi, reaffirmed the deepening strategic partnership between the two nations.

#### MORE ON NEWS:

- Both sides emphasized the importance of defence cooperation, regional stability, and their shared vision for a **free and open Indo-Pacific**.
- The meeting highlighted key discussions on defence technology transfers, geopolitical issues, and joint military exercises. The ministers also agreed to continue strengthening their collaboration across various domains, with the next 2+2 Ministerial Meeting scheduled **to be held in Japan**.

#### What Are 2+2 Meetings?

- The 2+2 meetings signify the participation of high-level representatives, specifically the Ministers holding **Foreign and Defence portfolios** from both countries, aimed at enhancing dialogue.
- In addition to Japan, India also holds 2+2 meetings with the **US, Australia, the United Kingdom, and Russia**.

#### HISTORY:

- India and Japan share '**Special Strategic and Global Partnership**'. Friendship between the two countries has a long history rooted in spiritual affinity and strong cultural and civilizational ties.
- The Shichifukujin, or seven lucky gods of Japan, have roots in Hindu traditions, and early contact between India and Japan dates back to **752 AD** when Indian monk Bodhisena consecrated the Buddha statue at Todaiji Temple.
- Prominent Indians like Swami Vivekananda, Rabindranath Tagore, and Netaji Subhash Chandra Bose have contributed to strong historical ties, with the **Japan-India Association, established in 1903**, being the **oldest international friendship body in Japan**.
- Japan and India signed a **peace treaty** and established diplomatic relations on in **1952**. This treaty was **one of the first peace treaties Japan signed after World War II**.



- Ever since the establishment of diplomatic relations, the **two countries have enjoyed cordial relations.**
- In the **post-World War II period, India's iron ore helped a great deal Japan's recovery from the devastation.**
- Japan started **providing yen loans to India in 1958**, as the first yen loan aid extended by Japanese government.

### **AREAS OF COOPERATION:**

- **Development Assistance:**
  - India has been the **largest recipient of Japanese Official Development Assistance (ODA) Loan** for the past decades.
  - Notable projects include the **Delhi Metro**, which remains one of the most successful examples of Japanese collaboration, along with recent projects like the **Mumbai-Ahmedabad High-Speed Rail (Bullet Train)** and various infrastructure initiatives across India.
- **Trade relations:**
  - In recent years, **economic relationship between Japan and India have steadily expanded and deepened.**
  - Bilateral trade totalled **USD 21.96 billion** during FY 2022-23. Exports from Japan to India during this period were **USD 16.49 billion** and **imports were USD 5.46 billion.**
  - The India-Japan **Comprehensive Economic Partnership Agreement (CEPA)** that came into force in **2011** covers trade in goods, services, movement of natural persons, investments, Intellectual Property Rights, custom procedures etc.
- **Investments:**
  - Japan remains a significant investor in India, ranking as the **5th largest source of Foreign Direct Investment (FDI)** into India, with cumulative investments totaling approximately **USD 38.74 billion** from 2000 to June 2023. Japanese **private-sector's interest in India is rising**, and, currently, about **1,455 Japanese companies have branches in India.**
- **Connectivity:**
  - Japan supports strategic connectivity linking South Asia to Southeast Asia through the synergy between **India's 'Act East' policy and Japan's 'Partnership for Quality Infrastructure.'**
  - Major projects include the introduction of **Japan's Shinkansen system** for the Mumbai-Ahmedabad High-Speed Rail and the Delhi-Mumbai Freight Corridor.

- **Energy:**
  - India has a **civil nuclear deal with Japan**, which provides for the development of nuclear power projects in India.
  - Both countries are members of the **International Thermonuclear Experimental Reactor (ITER)**.
  - They also cooperate in areas like **supply of electricity and renewable energy**. Japan is a party to the India- led **International Solar Alliance(ISA)**.
  
- **Defence:**
  - India and Japan conduct bilateral exercises like **JIMEX, SHINYUU Maitri, and Dharma Guardian**, and also participate in the **multilateral Malabar exercise**.
  - In 2020, they signed the **Acquisition and Cross-Servicing Agreement (ACSA)** for enhanced coordination in logistics.
  - The **2015 Agreement on Defence Equipment and Technology Cooperation** initiated technical discussions and the formation of the Joint Working Group on Defence Equipment and Technology Cooperation (JWG-DETC).
  - Recent developments from the 3rd 2+2 meeting include discussions on **Japan's Unicorn antenna** (a naval communication system that enhances warship stealth capabilities) and deepened defence cooperation, including **India and Japan's first joint fighter jet exercise, Veer Guardian 2023**.
  
- **Strategic:**
  - In 2014, India and Japan upgraded their ties to a 'Special Strategic and Global Partnership.'
  - Japan supports the **Asia-Africa Growth Corridor and the Quad (India, USA, Australia)** to counter China's influence.
  - Japan is also investing in India's rare earth minerals to reduce dependency on China. The first India-Japan 2+2 Foreign and Defence Ministerial Meeting was held in 2019.
  - India, Japan, and Australia launched the **Supply Chain Resilience Initiative (SCRI)** to counter China's dominance in the Indo-Pacific. Both countries are active members of **G-20 and G-4** (a group of four countries—**India, Japan, Germany, and Brazil**—that advocate for United Nations Security Council reform).
  
- **Cultural:**
  - Today, **Yoga is very popular in Japan**.
  - Also, there are agreements to promote bilateral partnership in **Indian traditional medicinal** systems like Ayurveda.

- **Technology and manpower:**
  - **Bilateral S&T cooperation** began in 1993 with the establishment of the **India-Japan Science Council (IJSC)**.
  - Today they cooperate in areas of in the areas of skill enhancement, Material Sciences, Healthcare, Methane Hydrate, Robotics, Peaceful uses of Outer Space etc.
  - **ISRO and JAXA** collaborate in areas like X-ray astronomy, satellite navigation, and lunar exploration, with key agreements signed in 2016, 2019, and 2021 to advance peaceful space activities, including projects on rice crop monitoring and space security discussions.
- **Indian community :**
  - The Indian community in Japan has grown to over 40,000, with many professionals, including IT experts and engineers. The **Nishikasai area** in Tokyo is emerging as a "**mini-India**," prompting the opening of three Indian schools. Around 282 Indian students are pursuing studies in Japan, with 30-40% in doctoral programs, alongside approximately 150 professors and 50 research visa holders.

#### **SIGNIFICANCE OF INDIA-JAPAN RELATIONS:**

- **Countering China:**
  - Japan is concerned about **China's actions in the East and South China Seas**, Xinjiang, and Hong Kong, while India focuses on China's military aggression along the **LAC**, including **Galwan Valley and ongoing tensions in Ladakh and Arunachal Pradesh**.
  - To counter China's influence, Japan leverages its resources and seeks close relations with a **strong naval ally like India**. Recent discussions during the 3rd 2+2 meeting emphasized the importance of their defence cooperation through **joint exercises and strategic partnerships in the Indo-Pacific**.
- **Strategic convergence:**
  - There is growing strategic convergence between the two countries. There is synergy between **India's Act-East Policy, Indo-Pacific vision based on the principle of SAGAR**, and Indo-Pacific Oceans Initiative (IPOI) on one hand, and **Japan's Free and Open Indo-Pacific Vision on the other**.
- **Development of North East:**
  - Japan has decided to **invest an amount Rs.13,000 crore in several ongoing as well as new projects** in different states of India's North- Eastern region.
  - This will be **vital for the region's development**.

- **Success of India's Asian ambitions:**
  - Japan cooperates in supporting strategic connectivity linking South Asia to Southeast Asia through the **synergy between Act East policy and Partnership for Quality Infrastructure.**
- **Infrastructural development:**
  - Japan is actively exporting its technology under **Partnership for Quality Infrastructure.** Given its large market, demography and growth potential, India stands to reap the most from this.
- **Maritime cooperation:**
  - Maritime security is an important subject on which both India and Japan have convergent interests.
  - Both countries depend critically on sea-borne trade for sustaining their economies.
- **Export of workforce and import of technology:**
  - Japan has the **oldest median age of population** (Almost a third of its population is over 65) in the world, but has technological superiority. **India has a young population** but is technologically deficient.
  - Hence, **technology-manpower exchanges will benefit both nations equally.**
- **For success of Indian efforts:**
  - Japan is a major manufacturing hub and has extended its support to the Make in India initiative.
  - Also, with the **Pandemic triggering an exodus of Japanese industries from China, India stands to gain.**
- **Maintain global order:**
  - Both nations **share several common ideals like democracy, the rule of law, and human rights**, which are vital in a rapidly deglobalizing world.
  - In the context of china's aggressive posturing in Indo-Pacific it is critical to further promote efforts toward the **realisation of a "Free and Open Indo-Pacific"**. For instance, prior to the 3<sup>rd</sup> 2+2 dialogue, Prime Minister Modi highlighted the importance of the **India-Japan partnership** in promoting "**peace and stability**" in the Indo-Pacific region.
- **Climatic vulnerabilities:**
  - Both countries are **acutely vulnerable to climate change impacts and hence require synergised actions** at the global and bilateral level.
  - In **Global Climate Risk Index 2021** >> India and Japan is ranked at **7<sup>th</sup> and 4<sup>th</sup> respectively.**

- **Increased scope for defence collaboration:**
  - Japan's goal **to revive its waning defence industry** as it comes out of the decades-old export ban **opens up wider scope for collaboration with Indian defence sector.**

### AREAS OF CONCERN:

- **Japan's economic closeness with China:**
  - Though they share a complicated relationship, **China is Japan's largest trading partner and Japan is China's third-largest trading partner.**
  - On comparison, **India-Japan trade relations are sub-optimal.**
- **India's RCEP exit:**
  - With India **no longer in the mix, RCEP has become a significantly weak bloc.**
  - Hence, Tokyo faces a major conundrum with the free trade agreement.
- **Irritants in cybersecurity cooperation.**
  - One, **India's insistence on data localization.**
  - Two, **India's reluctance to accede to global cybersecurity agreements** such as the **Budapest Convention.**
- **Future of Nuclear energy:**
  - Following the Fukushima disaster in 2011, there has been a **global aversion towards nuclear power and this is dominant in Japan itself.**
  - This has been a **major impediment in the full realisation of the Indo-japan civil nuclear deal**
- **Slow progress:**
  - The **Asia-Africa Growth Corridor (AAGC)** was announced in 2017. However, the actual progress has been slow. This is questioning its relevance as a counterweight to Belt and Road initiative.

### WAY FORWARD

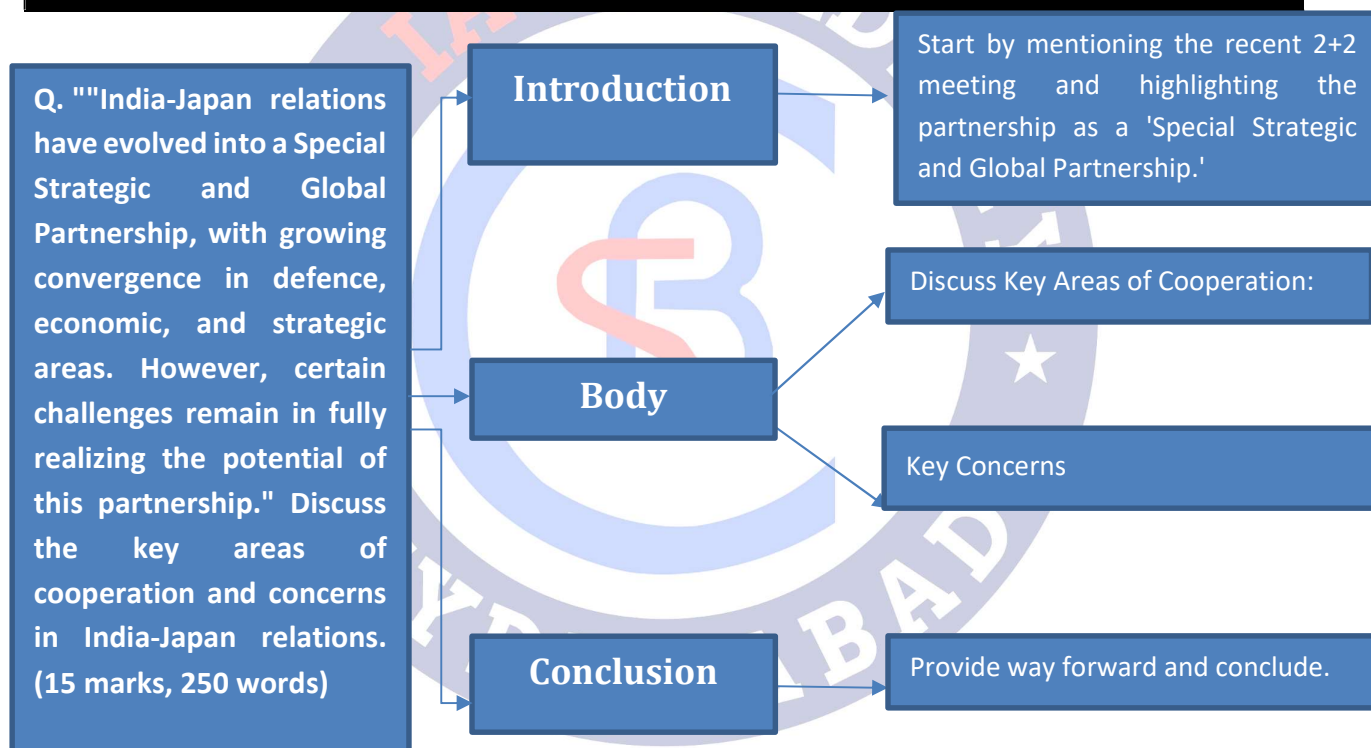
- **Expand Economic Ties:** India should enhance infrastructure and regulatory systems to attract Japanese investments, learning from ASEAN. Japan should reinforce initiatives like 'Make in India' and support connectivity projects in the Northeast and Andaman & Nicobar Islands.
- **Energy Cooperation:** Address rising energy demands through coordinated efforts, balancing both countries' import dependencies.
- **Climate Strategy:** Develop long-term plans to mitigate climate change impacts and reduce emissions.
- **Maritime Safety:** Strengthen cooperation in maritime security and domain awareness in the Indo-Pacific.

- **People-to-People Ties:** Utilize the potential of the Indian diaspora in Japan more effectively.
- **Defence Collaboration:** Boost research in areas like Unmanned Ground Vehicles (UGVs) and continue strategic coordination to counter China's influence.

## PRACTICE QUESTION

Q. "India-Japan relations have evolved into a Special Strategic and Global Partnership, with growing convergence in defence, economic, and strategic areas. However, certain challenges remain in fully realizing the potential of this partnership." Discuss the key areas of cooperation and concerns in India-Japan relations. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

The **third India-Japan 2+2 ministerial meeting**, recently held in New Delhi, reaffirmed the deepening strategic partnership between the two nations. Both countries emphasized defence cooperation, regional stability, and their shared vision for a free and open Indo-Pacific. This partnership, categorized as a '**Special Strategic and Global Partnership**,' highlights their growing convergence in multiple areas. However, certain challenges persist, impeding the full realization of this relationship's potential.

## Key Areas of Cooperation:

### 1. Defence and Strategic Cooperation:

- **2+2 Ministerial Dialogue:** The 2+2 dialogue has enhanced bilateral defence cooperation, including discussions on technology transfers, joint military exercises, and logistics coordination through agreements like the Acquisition and Cross-Servicing Agreement (ACSA).
- **Maritime Security:** Both nations share common interests in maritime security, with exercises like JIMEX, SHINYUU Maitri, and Malabar strengthening their naval cooperation.
- **Indo-Pacific Vision:** India's SAGAR (Security and Growth for All in the Region) initiative and Japan's Free and Open Indo-Pacific Vision align to counter China's influence in the region.

### 2. Economic and Trade Relations:

- **Bilateral Trade and Investments:** Japan is the 5th largest source of FDI in India, with cumulative investments of USD 38.74 billion from 2000 to June 2023. Major projects include the Delhi Metro and the Mumbai-Ahmedabad High-Speed Rail.
- **Development Assistance:** India has been the largest recipient of Japanese ODA, with projects contributing significantly to India's infrastructure growth.
- **Technology and Workforce Exchange:** Japan's ageing population and India's young workforce create synergies for technology and manpower exchanges, benefiting both economies.

### 3. Connectivity and Regional Development:

- **Strategic Connectivity:** Japan supports India's Act East Policy and the Partnership for Quality Infrastructure, facilitating projects like the Delhi-Mumbai Freight Corridor and investments in the Northeast region.

### 4. Energy Cooperation:

- **Civil Nuclear Deal:** India and Japan's civil nuclear deal aims to develop nuclear power projects, and both countries cooperate in renewable energy and electricity supply. Japan is also a member of the India-led International Solar Alliance (ISA).

### 5. Cultural and People-to-People Ties:

- **Cultural Exchange:** Yoga, Ayurveda, and traditional medicinal systems are popular in Japan, fostering cultural ties. The Indian community in Japan has grown to over 40,000, with professionals contributing to various sectors.

## Key Concerns:

1. **Japan's Economic Closeness with China:** Despite strategic differences, Japan remains economically intertwined with China, with China being Japan's largest trading partner. In

comparison, India-Japan trade relations are sub-optimal, limiting their economic partnership.

2. **India's RCEP Exit:** India's withdrawal from the Regional Comprehensive Economic Partnership (RCEP) has weakened the bloc, posing a challenge for Japan, which has to navigate this new trade dynamic without India.
3. **Cybersecurity and Data Localization Issues:** India's insistence on data localization and reluctance to join global cybersecurity agreements like the Budapest Convention have created friction in cybersecurity cooperation with Japan.
4. **Nuclear Energy Hesitancy:** Post-Fukushima, Japan's cautious approach towards nuclear energy has hindered the full realization of the Indo-Japan civil nuclear deal, affecting energy collaboration.
5. **Slow Progress on Asia-Africa Growth Corridor:** Announced in 2017, the Asia-Africa Growth Corridor (AAGC) has seen slow progress, questioning its relevance as a counterweight to China's Belt and Road Initiative (BRI).

#### Way forward:

- **Expand Economic Ties:** India should improve infrastructure to attract Japanese investments, and Japan should support initiatives like 'Make in India.'
- **Enhance Defence Collaboration:** Focus on emerging technologies and coordinated efforts to counter China's influence in the Indo-Pacific.
- **Strengthen Climate and Energy Cooperation:** Joint strategies to address climate change impacts and energy security.
- **Boost People-to-People Connections:** Leverage the Indian diaspora and promote cultural and educational exchanges.

India-Japan relations have significantly strengthened across various domains, reflecting their shared strategic interests and mutual cooperation. However, challenges like Japan's economic ties with China, slow progress in certain initiatives, and differences in cybersecurity policies need to be addressed. Moving forward, expanding economic ties, enhancing energy cooperation, and deepening defence collaboration can further unlock the full potential of this Special Strategic and Global Partnership.



## 13. GLOBAL SOUTH

### IMPACT ANALYSIS

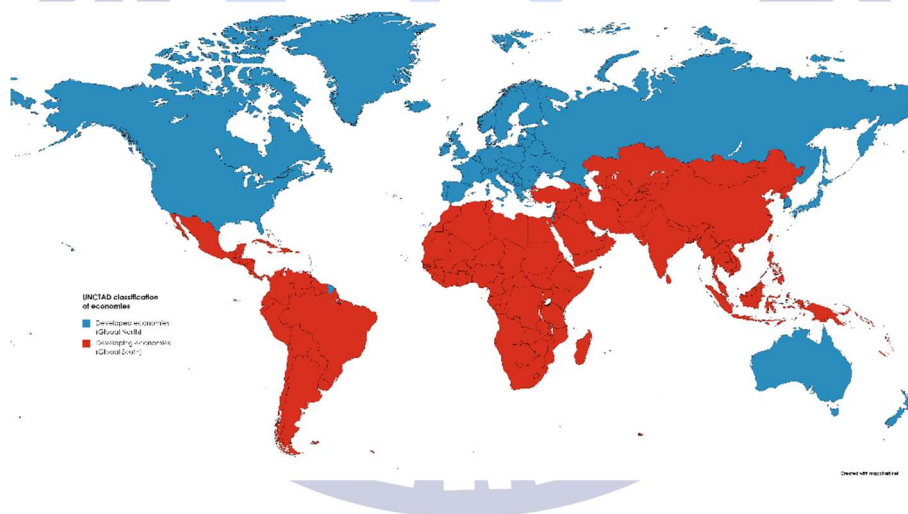
#### SYLLABUS:

GS 2 > International Relations

#### REFERENCE NEWS:

The countries of the 'Global South' need to unite and speak in one voice as they face concerns related to food, health and energy security while grappling with challenges thrown by the situation of war on their development journey, Prime Minister said. The global governance and financial institutions created in the last century have been unable to meet the challenges of this century, PM said in his opening remarks at the third **Voice of Global South Summit** being held in the virtual format.

#### GLOBAL SOUTH:



The Global South refers to countries often characterized as **developing, less developed, or underdeveloped**, primarily located in **Africa, Asia, and Latin America**. These nations typically experience **higher levels of poverty, income inequality, and challenging living conditions** compared to the wealthier nations of the Global North.

Previously developing nations were commonly referred to as the Third World nations. The term Global South was coined in 1969 by political activist Carl Oglesby. The term Third World became associated with **poverty, instability, and negative stereotypes** propagated by **Western media**. As a result, the term "**Global South**" emerged as a more neutral alternative.

<p><b><u>Economic Significance:</u></b></p> <p><b>Emerging Markets:</b> The Global South contains many of the world's fastest-growing economies, including India, China, Brazil, and Indonesia. These countries are increasingly driving global economic growth.</p> <p><b>Natural Resources:</b> The region is rich in natural resources, including oil, gas, minerals, and agricultural products, making it a critical supplier to the global economy like regions of South China Sea, African gold and diamonds, South American Lithium belt etc.</p> <p><b>Labour Force:</b> With a young and growing population, the Global South represents a vast labour force, contributing to global manufacturing, service industries, and innovation. India and China are the world's most populous countries.</p> <p><b>Investment Opportunities:</b> Due to high growth potential, these regions are attractive destinations for foreign direct investment (FDI) and international trade.</p>	<p><b><u>Cultural Significance:</u></b></p> <p><b>Diverse Cultures:</b> The Global South is home to a vast array of cultures, languages, traditions, and religions, contributing to global cultural diversity.</p> <p><b>Cultural Exports:</b> Countries like India, South Korea, and Brazil are influential in global culture, exporting music, cinema, fashion, and cuisine, which enrich the global cultural landscape.</p> <p><b>Preservation of Heritage:</b> Many Global South countries are custodians of ancient civilizations and cultural heritage, playing a critical role in preserving and promoting this heritage on the global stage.</p>
<p><b><u>Political Significance:</u></b></p> <p><b>Geopolitical Influence:</b> Countries in the Global South are increasingly asserting their influence in international affairs, often through platforms like BRICS (Brazil, Russia, India, China, South Africa) and the G20. They advocate for a more multipolar world order and greater representation in global governance.</p> <p><b>South-South Cooperation:</b> These nations are forming alliances and partnerships with each other to promote mutual development, technology transfer, and shared interests in global forums as seen in Voice of Global South Summit.</p> <p><b>Diplomatic Leverage:</b> The Global South often acts as a counterbalance to the Global North in multilateral organizations like the United Nations, where they push for reforms and equitable treatment in global decision-making processes.</p>	<p><b><u>Environmental Significance:</u></b></p> <p><b>Biodiversity:</b> The Global South is home to some of the world's most biodiverse regions, including the Amazon rainforest, African savannas, and Southeast Asian rainforests. These areas are crucial for global biodiversity conservation.</p> <p><b>Climate Change Impact:</b> These regions are among the most vulnerable to climate change, experiencing severe impacts like rising sea levels, desertification, and extreme weather events. As such, they are at the forefront of the global climate change dialogue, advocating for climate justice and sustainable development.</p> <p><b>Renewable Energy Potential:</b> The Global South has significant potential for renewable energy, especially solar, wind, and hydroelectric power, which could play a key role in global efforts to transition to clean energy.</p>

<p><b>Shift in Wealth</b> from North Atlantic to Asia Pacific as acknowledged by World Bank. The combined GDP of the <b>BRICS</b> already surpasses that of the G-7 nations. Asian nations are predicted to play the role of Asian Century.</p>	
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### CHALLENGES FACED BY GLOBAL SOUTH:

#### Economic Challenges:

- **Poverty and Inequality:** Many of the Global South nations face issues of war, refugee crisis, unemployment etc. These are basically regarded as **resource curse** countries. For example African nations like South Sudan, Arabian country Yemen.
- **Unstable Markets:** These economies are often dependent on volatile commodity markets, making them vulnerable to global economic fluctuations and price shocks.
- **Lack of Infrastructure:** Poor infrastructure in areas like transportation, energy, and digital connectivity hampers economic growth and integration into the global economy.

#### Political Challenges:

- **Governance Issues:** Many countries in the Global South face challenges related to weak governance, corruption, and political instability followed by government uproot through military junta which undermine development efforts and contribute to social unrest. Myanmar, and recently Bangladesh faced political instability.
- **Conflict and Security:** The region is prone to internal and cross-border conflicts, terrorism, and organized crime, which disrupt social cohesion and economic progress. The recent evidence of Russia Ukraine war impact.
- **Dependence on External Powers:** Some countries in the Global South remain heavily reliant on aid, trade, and investment from more developed nations, which can limit their political and economic autonomy leading to debt burden. Sri Lanka is a global south nation heavily depending on Chinese aid for maintaining its economy.

#### Social Challenges:

- **Health Crises:** The Global South is disproportionately affected by health crises, including infectious diseases like HIV/AIDS, malaria, and more recently, COVID-19. Limited healthcare infrastructure exacerbates these challenges. Many African nations are venue to infections like e-coli and malarial outbreak.

- **Education Deficits:** Access to quality education remains a significant challenge, with high dropout rates, low literacy levels, and insufficient educational infrastructure hindering human capital development. HDI data shows Global south below average performance in educational and health outcomes.
- **Population Growth:** The Global South, which includes Africa, Asia, and Latin America, is expected to see nearly all of the world's population growth by 2050. The UN projects that the world's population will increase to 9.7 billion by 2050, and possibly as high as 11–20 billion by 2100. Sub-Saharan Africa is expected to account for about two-thirds of this growth, nearly doubling its population by 2050.

### Environmental Challenges:

- **Climate Change Vulnerability:** The Global South is highly vulnerable to the impacts of climate change, including extreme weather events, rising sea levels, and desertification. These effects threaten food security, livelihoods, and habitation. The Indonesian islands, Polynesian islands are current examples of rising sea level and climate induced displacement.
- **Environmental Degradation:** Deforestation, pollution, and loss of biodiversity are pressing issues, often driven by unsustainable agricultural practices, mining, and industrialization. There has been issue over Green Energy Fund.
- **Resource Depletion:** Over-exploitation of natural resources, such as water, minerals, and forests, threatens long-term sustainability and leads to conflicts over resource control. Water scarcity is a threat faced by countries like India where 1.4 billion depend on 4% of water resources.

### Technological Challenges:

- **Digital Divide:** The Global South faces a significant digital divide, with limited access to the internet and digital technologies, which hampers economic development, education, and participation in the global economy.
- **Technological Dependence:** Many Global South countries rely on imported technology and lack the capacity to develop indigenous technological innovations, limiting their ability to compete globally.
- **Cybersecurity Threats:** With increasing digitalization, countries in the Global South are increasingly vulnerable to cyberattacks, which can disrupt essential services and economic activities.

### Cultural Challenges:

- **Cultural Homogenization:** Globalization and the dominance of Western media and culture can lead to the erosion of indigenous cultures, languages, and traditions in the Global South.
- **Identity Conflicts:** Cultural and ethnic diversity, while a strength, can also lead to tensions and conflicts, especially in regions with a history of colonialism and external interference.

### WAY FORWARD FOR GLOBAL SOUTH IN THE CHANGING GEOPOLITICS AND POWER SHIFT ERA:

#### Strengthening South-South Cooperation:

- **Economic Collaboration:** For example, the African Continental Free Trade Area (AfCFTA) aims to create a single market for goods and services across 54 African countries, boosting intra-African trade and economic growth.

#### Diversifying and Strengthening Economies:

- **Industrialization and Value Addition:** Ethiopia, for instance, has invested in industrial parks and aims to become a manufacturing hub in Africa, particularly in the textile and garment sectors.
- **Diversifying Trade Partners:** The Global South can reduce economic vulnerability by diversifying its trade partners beyond traditional Western markets. For instance, China has become a significant trading partner for many African and Latin American countries, providing an alternative market for their exports.

#### Investing in Human Capital and Innovation:

- **Education and Skills Development:** India's IT sector, supported by a strong emphasis on technical education, has positioned the country as a global leader in information technology services.
- **Fostering Innovation:** Kenya, known as the "Silicon Savannah," has become a hub for tech innovation in Africa, with mobile payment systems like M-Pesa revolutionizing financial services.

#### Enhancing Political and Diplomatic Alliances:

- **Multilateralism and Global Governance:** The Global South should continue to push for reforms in global governance institutions like the United Nations, the World Bank, and the IMF to ensure more equitable representation. Through coalitions like the G77,

developing countries have collectively advocated for their interests in international forums.

- **Regional Integration:** Strengthening regional organizations like the African Union (AU), the Association of Southeast Asian Nations (ASEAN), and the Community of Latin American and Caribbean States (CELAC) can help the Global South coordinate political strategies and present a united front on global issues.

#### **Promoting Sustainable Development:**

- **Climate Change Leadership:** The Global South should take a leadership role in global climate negotiations, advocating for climate justice, adaptation funding, and technology transfer. Countries like Costa Rica have set an example by committing to carbon neutrality and investing in renewable energy.
- **Sustainable Agriculture:** Brazil's advancements in no-till farming and its role as a leading producer of biofuels demonstrate the potential for sustainable agriculture to contribute to economic growth.

#### **Leveraging Digital Transformation:**

- **Digital Economy and E-Governance:** Rwanda, through its Vision 2020 initiative, has become a leader in e-governance and digital innovation, attracting investment and improving public services.
- **Bridging the Digital Divide:** India's Digital India initiative aims to connect rural areas with high-speed internet and promote digital literacy, thereby empowering millions of citizens.

#### **Advocating for Fair Trade and Investment Practices:**

- **Negotiating Fair Trade Agreements:** The negotiation of the Economic Partnership Agreements (EPAs) between the European Union and African, Caribbean, and Pacific (ACP) countries highlights the importance of balancing trade liberalization with development needs.
- **Attracting Sustainable Investment:** Vietnam has successfully attracted FDI in its manufacturing sector, contributing to rapid economic development while maintaining a focus on sustainability.

## **HOW INDIA CAN BE A LEADER IN GLOBAL SOUTH:**

**Economic Leadership:** As one of the fastest-growing major economies, initiatives like the International Solar Alliance (ISA) showcase India's leadership in renewable energy, offering sustainable solutions to Global South countries.

**Capacity Building:** Through initiatives like the Indian Technical and Economic Cooperation (ITEC) program, India can offer training and skill development programs to enhance the capabilities of other Global South nations.

**Diplomatic Leadership:** India has been instrumental in fostering South-South cooperation, as seen in its active participation in forums like BRICS, IBSA (India, Brazil, South Africa), and the G20. By organizing and leading initiatives such as the Voice of Global South Summit, India can amplify the concerns of developing nations, pushing for a more equitable global order.

**Cultural Diplomacy:** India's rich cultural heritage, including its traditions, art, and cinema, has a strong influence across the Global South. India can enhance its leadership by offering scholarships, educational programs, and research collaborations to students and professionals from Global South countries.

**Technological Leadership:** India's experience with large-scale digital initiatives like Aadhaar (biometric identification system) and the Digital India campaign can serve as a model for other Global South nations. By promoting itself as a hub for technological innovation, particularly in areas like IT, biotechnology, and renewable energy, India can support.

**Maritime Security:** India's strategic location in the Indian Ocean makes it a key player in ensuring maritime security and freedom of navigation, crucial for the economic stability of many Global South nations through SAGAR doctrine.

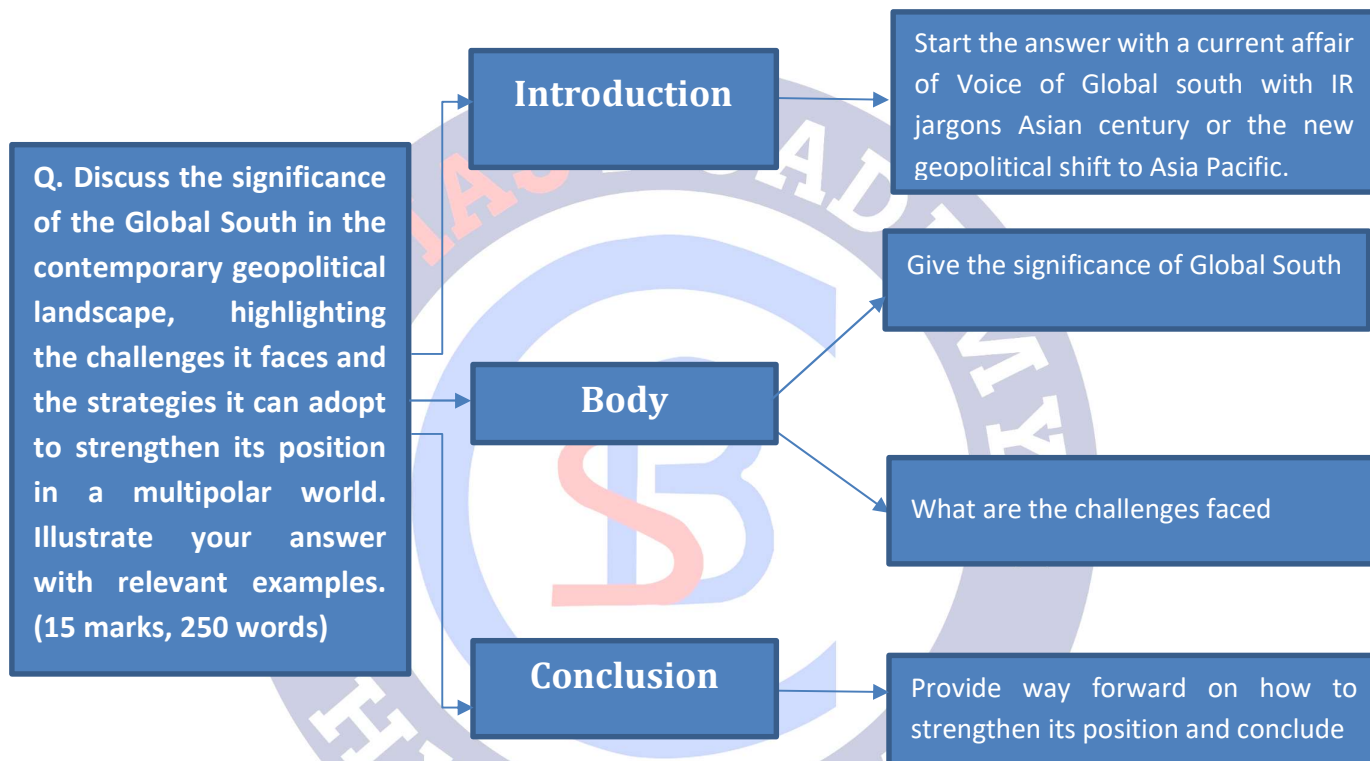
**Sustainable Development:** India's achievements in sustainable agriculture, water conservation, and rural development can serve as models for other Global South countries. Sharing best practices and collaborating on sustainable development projects can further India's leadership. ISA, CDRI are such platforms India voices.

**Advocacy for Global Governance Reform:** India can champion the cause of reforming global governance institutions like the United Nations Security Council (UNSC), International Monetary Fund (IMF), and World Bank to ensure that they reflect the contemporary realities and interests of the Global South. India's call for a permanent seat at the UNSC is part of this broader agenda.

## PRACTICE QUESTION

Q. Discuss the significance of the Global South in the contemporary geopolitical landscape, highlighting the challenges it faces and the strategies it can adopt to strengthen its position in a multipolar world. Illustrate your answer with relevant examples. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

The Global South, encompassing nations in Africa, Asia, and Latin America, has emerged as a significant force in the global geopolitical landscape. Traditionally viewed as developing or underdeveloped, these countries are increasingly influencing global economic and political dynamics, advocating for a more multipolar world being the face of the Asian Century.

### SIGNIFICANCE OF THE GLOBAL SOUTH:



**Economic Significance:** The Global South includes some of the world's fastest-growing economies like India, China, and Brazil. These countries are rich in natural resources, contributing significantly to the global economy. Additionally, the young and growing labor force in these regions provides immense opportunities for global manufacturing and service industries.

**Political Significance:** Countries in the Global South are increasingly asserting their influence through platforms like BRICS and the G20. These nations advocate for a more multipolar world order and seek greater representation in global governance institutions. The Voice of Global South Summit is an example of efforts to unite and amplify their voices on the global stage.

**Cultural Significance:** The Global South is home to diverse cultures and traditions that enrich global cultural diversity. Nations like India, South Korea, and Brazil are cultural powerhouses, exporting music, cinema, and cuisine globally. Moreover, these countries play a critical role in preserving ancient civilizations and cultural heritage.

**Environmental Significance:** The Global South is crucial for global biodiversity conservation, housing regions like the Amazon rainforest and African savannas. However, these areas are highly vulnerable to climate change. Countries in the Global South are advocating for climate justice and are at the forefront of global climate change discussions.

### **CHALLENGES FACED BY THE GLOBAL SOUTH:**

**Economic Challenges:** Many Global South nations grapple with poverty, inequality, and unstable markets, often exacerbated by a lack of infrastructure. These challenges hinder their economic growth and integration into the global economy.

**Political Challenges:** Weak governance, corruption, and political instability are prevalent in several Global South countries, undermining development efforts. Additionally, dependence on external powers for aid and investment can limit their autonomy.

**Social Challenges:** Health crises, such as the recent COVID-19 pandemic, disproportionately affect the Global South, where healthcare infrastructure is often inadequate. Education deficits and rapid population growth further strain resources and exacerbate poverty.

**Environmental Challenges:** Climate change poses a severe threat to the Global South, leading to rising sea levels, desertification, and food insecurity. Environmental degradation, driven by deforestation and unsustainable practices, further threatens long-term sustainability.

**Technological Challenges:** The digital divide remains a significant barrier, limiting access to the internet and digital technologies. Many countries also rely on imported technology, which hampers their ability to compete globally.

### STRATEGIES FOR EMPOWERMENT:

**Strengthening South-South Cooperation:** Initiatives like the African Continental Free Trade Area (AfCFTA) aim to boost intra-regional trade and economic growth. Collaborative efforts in technology transfer and development can also reduce dependence on the Global North.

**Diversifying and Strengthening Economies:** Investing in industrialization and value addition can help countries move up the value chain. Ethiopia's investment in industrial parks to become a manufacturing hub is a notable example.

**Investing in Human Capital and Innovation:** Fostering education and skills development is essential for economic growth. India's success in the IT sector, driven by a focus on technical education, illustrates the potential of investing in human capital.

**Enhancing Political and Diplomatic Alliances:** The Global South should continue advocating for reforms in global governance institutions to ensure equitable representation. Strengthening regional organizations like ASEAN and the African Union can also enhance political cooperation.

**Promoting Sustainable Development:** Countries like Costa Rica, which have committed to carbon neutrality and renewable energy, can lead by example in the global climate change dialogue.

The Global South plays a pivotal role in shaping the global order and advocating for a more equitable world. By uniting their efforts, investing in human capital, and leveraging their natural and cultural resources, these countries can overcome challenges and strengthen their position in a rapidly changing global landscape.

## 14. REFUGEE RIGHTS

### IMPACT ANALYSIS

#### SYLLABUS:

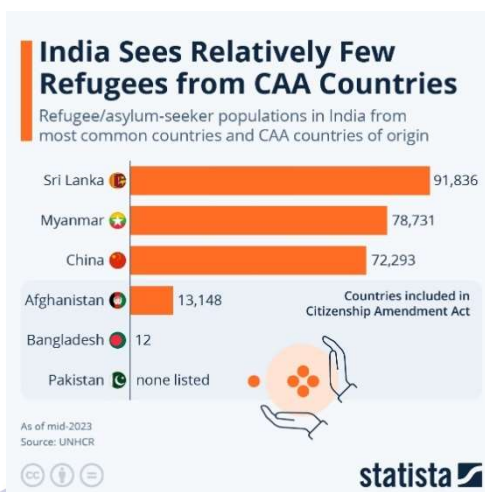
GS 2 > International Relations >> Refugees

#### REFERENCE NEWS:

According to the United Nations High Commissioner for Refugees (UNHCR), by the end of 2023, **11.73 crore people**, worldwide, had been **forcibly displaced** due to persecution, conflict, violence, human rights violations or events seriously disturbing public order. Among them, **3.76 crore were refugees**. With the Israel-Hamas war having escalated since then, the Ukraine-Russia war continuing, and Rohingyas facing fresh threats in Myanmar, the number of refugees worldwide is only expected to multiply significantly.

#### INDIA AS A REFUGEE RECEIVING NATION:

- India has historically been perceived as a **'refugee-receiving' nation** having hosted over 2,00,000, diverse refugee groups since its independence.
- As of January 31, 2022, 46,000 refugees and asylum-seekers were registered with UNHCR India.
- 46% of this population is comprised of women and girls, a disproportionately burdened and vulnerable group. They are made solely accountable for children, are often the last to flee, are saddled with gendered care-giving responsibility for both the old and the young, and are often required to single-handedly bear responsibility for the family's sustenance.
- India has Sri Lankan Tamils, Rohingyas from Myanmar, Tibetan population, persecuted Afghans etc
- Despite having a large influx of refugees and hosting them India does not have a refugee policy or haven't been a party to the Geneva Convention on refugees.



### REASONS BEHIND RISING REFUGEES:

- **Conflict and War:** Armed conflicts within countries are one of the primary causes of large-scale displacement. Ethnic violence and genocides have also resulted in mass displacement.
  - The Syrian Civil War, which began in 2011, has led to millions of Syrians fleeing their homes. According to the UNHCR, over 6.6 million Syrians have become refugees, primarily in neighbouring countries like Turkey, Lebanon, and Jordan.
  - The Rohingya crisis in Myanmar is a stark example, where violence against the Rohingya Muslim minority has forced over 700,000 people to flee to Bangladesh since 2017.
- **Persecution and Human Rights Violations:** Individuals and communities often flee their countries due to systematic persecution based on religion, ethnicity, or political beliefs.
  - In Eritrea, severe human rights abuses, including forced conscription and religious persecution, have driven tens of thousands of people to seek asylum in Europe and elsewhere.
- **Climate Change and Environmental Degradation:** Increasingly frequent and severe natural disasters, such as hurricanes, floods, and droughts, are forcing people to leave their homes.
  - In the Pacific Islands, rising sea levels due to climate change are making entire communities uninhabitable, leading to a gradual but inevitable displacement of populations.
  - In regions like the Sahel in Africa, desertification and resource scarcity are driving people away from their traditional lands. The combination of environmental stress and conflict over dwindling resources has resulted in significant internal and cross-border displacement.

- **Economic Instability and Poverty:** Economic hardships can also drive people to seek refuge in other countries. Many refugees are also economic migrants who leave their homes due to the lack of economic opportunities.
  - In countries like Afghanistan, the combination of ongoing conflict, economic collapse, and food insecurity has led to a significant increase in people fleeing to neighbouring countries like Pakistan and Iran.
  - The large-scale migration from Central America to the United States is partly driven by poverty, violence, and the lack of economic prospects in countries like Honduras, Guatemala, and El Salvador.
- **Weak Governance and State Failure:** The collapse of governments or failure to maintain law and order can create conditions that drive people to flee. In some cases, pervasive corruption and mismanagement of resources lead to public dissatisfaction and unrest, further contributing to the displacement of people.
  - In countries like South Sudan, the lack of effective governance, ongoing conflict, and economic collapse have resulted in millions of people being displaced both internally and across borders.

### CHALLENGES OF RISING REFUGEES:

REFUGEES	RECEIVING NATIONS
<p><b>Shelter and Food:</b> Refugees often find themselves in overcrowded camps or informal settlements with inadequate shelter, sanitation, and access to clean water.</p> <ul style="list-style-type: none"> <li>○ In Cox's Bazar, Bangladesh, where over 900,000 Rohingya refugees reside, the living conditions are dire, with many lacking sufficient food, clean water, and medical care.</li> </ul>	<p><b>Resource Allocation:</b> Hosting large numbers of refugees can put a strain on a country's resources, including housing, healthcare, education, and public services.</p> <ul style="list-style-type: none"> <li>○ Lebanon, which hosts over 1.5 million Syrian refugees, has seen its infrastructure overwhelmed, leading to shortages in electricity, water, and healthcare services.</li> </ul>
<p><b>Healthcare:</b> Access to healthcare is often limited or non-existent, leading to the spread of diseases and high mortality rates.</p> <ul style="list-style-type: none"> <li>○ In the Zaatari camp in Jordan, which houses Syrian refugees, the healthcare system is overwhelmed, and refugees often struggle to get treatment for chronic conditions.</li> </ul>	<p><b>Employment Pressure:</b> Refugees often compete with locals for jobs, which can lead to increased unemployment and social tensions.</p> <ul style="list-style-type: none"> <li>○ In Uganda, where the refugee population is close to 1.5 million, the local job market is under pressure, particularly in low-skilled sectors.</li> </ul>
<p><b>Mental Health Issues:</b> The trauma of fleeing violence, losing loved ones, and facing an uncertain future can lead to significant mental health issues.</p>	<p><b>Xenophobia and Discrimination:</b> Refugees often face discrimination and xenophobia, which can manifest in hostility, violence, and exclusion.</p>

<ul style="list-style-type: none"> <li>○ Refugees from conflict zones like Syria and Afghanistan often suffer from PTSD, depression, and anxiety, but lack access to mental health services.</li> </ul>	<ul style="list-style-type: none"> <li>○ In South Africa, xenophobic attacks have targeted refugees and migrants, accusing them of taking jobs and resources from locals.</li> </ul>
<p><b>Social Integration:</b> Refugees often face difficulties integrating into new communities due to language barriers, cultural differences, and discrimination.</p> <ul style="list-style-type: none"> <li>○ In Germany, where over a million refugees have arrived since 2015, many have struggled to learn the language and integrate into the job market.</li> </ul>	<p><b>Cultural Clashes:</b> Differences in language, religion, and cultural practices can lead to social tensions between refugees and host communities.</p> <ul style="list-style-type: none"> <li>○ In Sweden, which has received a significant number of refugees, there have been challenges related to integrating these populations into a relatively homogeneous society.</li> </ul>
<p><b>Lack of Legal Status:</b> Without official refugee status, many refugees are unable to access basic services, work legally, or move freely.</p> <ul style="list-style-type: none"> <li>○ Many Venezuelan refugees in Colombia lack legal status, limiting their access to healthcare, education, and employment opportunities.</li> </ul>	<p><b>Political Backlash:</b> The arrival of large numbers of refugees can lead to political polarization and backlash.</p> <ul style="list-style-type: none"> <li>○ In Europe, the refugee crisis has fueled the rise of far-right parties that advocate for stricter immigration controls, as seen in countries like Hungary and Italy.</li> </ul>
<p><b>Prolonged Asylum Processes:</b> The asylum process can be lengthy and uncertain, leaving refugees in a state of limbo.</p> <ul style="list-style-type: none"> <li>○ In Greece, where thousands of refugees have sought asylum, the backlog of cases has left many waiting for years in overcrowded camps with little hope for resolution.</li> </ul>	<p><b>Security Risks:</b> There are concerns that refugee flows might be infiltrated by criminal elements or militants, although these fears are often exaggerated. Nonetheless, the sheer number of arrivals can pose logistical and security challenges for border control and law enforcement agencies.</p> <ul style="list-style-type: none"> <li>○ In Turkey, which hosts over 3.7 million Syrian refugees.</li> </ul>
<p><b>Strain on Natural Resources:</b> Water and land resources can be overstretched by large refugee populations, exacerbating existing environmental challenges.</p> <ul style="list-style-type: none"> <li>○ In Jordan, the influx of Syrian refugees has placed significant pressure on the country's already scarce water resources, leading to increased competition for this vital resource.</li> </ul>	<p><b>Environmental Degradation:</b> The sudden influx of large refugee populations can lead to environmental degradation, particularly in fragile ecosystems.</p> <ul style="list-style-type: none"> <li>○ In the Kakuma refugee camp in Kenya, deforestation has occurred as refugees cut down trees for firewood, leading to soil erosion and loss of biodiversity.</li> </ul>

## WAY FORWARD TO THE GLOBAL REFUGEE CRISIS:

**Peacebuilding Programs:** Post-conflict regions require comprehensive peacebuilding programs that focus on reconciliation, rebuilding institutions, and ensuring long-term stability.

- In countries like South Sudan, where conflict has caused widespread displacement, peacebuilding initiatives are essential to prevent further violence and encourage the return of refugees.

**Enhancing Humanitarian Assistance:** The global community must ensure that UN agencies like UNHCR, as well as other humanitarian organizations, receive adequate funding to provide essential services such as food, shelter, education, and healthcare to refugees. Countries that host large numbers of refugees need more substantial support, both financially and technically, from the international community.

- The Global Compact on Refugees, adopted by the UN in 2018, emphasizes **burden-sharing** and aims to provide more predictable and equitable support to host countries.

**Promoting Sustainable Development in Host Countries:** Host countries should be supported in integrating refugees into their economies through access to work permits, vocational training, and education.

- The Jordan Compact, an agreement between Jordan and international donors, has facilitated investments in education and employment for Syrian refugees and Jordanians alike.

**Promoting Safe and Legal Migration Pathways:** More countries need to participate in refugee resettlement programs, providing safe and legal pathways for refugees to relocate and rebuild their lives. Facilitating the issuance of humanitarian visas and prioritizing family reunification can provide refugees with legal avenues to enter safe countries, reducing the need for dangerous and irregular migration routes.

- Countries like Canada and Germany have expanded their resettlement efforts in recent years, offering a model for others to follow.

**International Cooperation and Multilateralism:** The Comprehensive Refugee Response Framework (CRRF) has been implemented in several African countries to foster regional cooperation in managing refugee situations. Strengthening the 1951 Refugee Convention and its 1967 Protocol by ensuring more countries ratify and adhere to its provisions can improve the protection of refugees.

## HOW INDIA CAN DEAL WITH HER REFUGEE CRISIS:

**Developing a Comprehensive Refugee Policy:** Developing a comprehensive refugee law that defines the rights and responsibilities of refugees, as well as the obligations of the Indian state, would provide a structured approach to managing refugees. The legal status of refugees in India varies, with some receiving protection under UNHCR and others living as undocumented immigrants. A clear legal framework would help standardize procedures for refugee registration, documentation, and access to basic services.

**Strengthening Security Measures:** India should continue to improve its border management to prevent illegal crossings while ensuring that those fleeing persecution can seek asylum. This includes deploying technology, better training for border security forces, and collaboration with neighbouring countries to manage refugee flows. Biometric registration and regular monitoring of refugee settlements can prevent the infiltration of extremist elements.

**Humanitarian Assistance and Social Integration:** India should ensure that refugees have access to essential services such as healthcare, education, and legal aid. Integrating refugees into the public health and education systems can help them lead dignified lives while contributing to the local economy. Encouraging community-based initiatives that foster integration between refugees and local populations can reduce social tensions. In areas like Jammu and Kashmir, where large numbers of Rohingya refugees are present, local NGOs and community organizations can play a critical role in promoting coexistence.

**Promoting Livelihood Opportunities:** Providing vocational training employment opportunities, Microfinance and entrepreneurial opportunities to refugees can help them become self-reliant and reduce their dependence on state support. For example, India could replicate successful initiatives like the Self-Employed Women's Association (SEWA), which empowers women, including refugees, through skill development and entrepreneurship.

**Regional and International Cooperation:** India can play a leading role in fostering regional cooperation on refugee issues through platforms like the South Asian Association for Regional Cooperation (SAARC). This could include developing regional frameworks for burden-sharing, joint border management, and coordinated humanitarian responses. India's collaboration with the UNHCR and other international organizations should be strengthened to ensure better support for refugees.

**Balancing Humanitarian Concerns with National Interests:** India can consider participating in selective resettlement programs for specific vulnerable groups, such as women and children, who face heightened risks in refugee camps. This approach can be balanced with India's national security concerns and economic capabilities. Where possible, India can work with countries of



origin and international partners to facilitate the voluntary return of refugees to their home countries.

**Development Assistance:** Providing development assistance to countries in the region can help address the underlying issues that lead to displacement. India's involvement in infrastructure development, education, and healthcare in neighbouring countries can contribute to reducing the need for people to flee their homes.

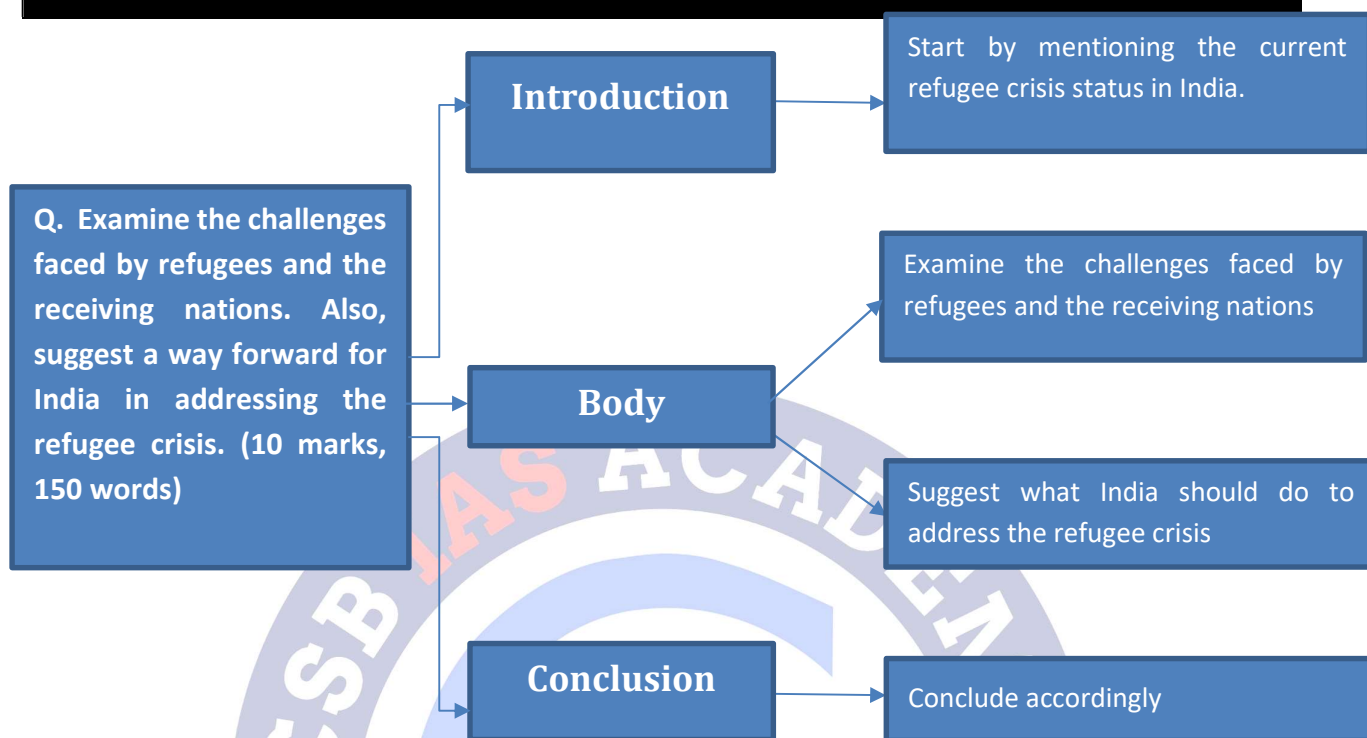
**Promoting Social Cohesion:** India should encourage initiatives that promote social cohesion between refugees and local communities, particularly in areas where there are significant refugee populations. Cultural exchange programs, community dialogue forums, and joint community service projects can help build understanding and reduce tensions.

**Sustainable Settlement Planning:** Refugee settlements should be planned with environmental sustainability in mind, particularly in ecologically sensitive areas. This includes ensuring that refugee camps do not lead to deforestation, water scarcity, or other forms of environmental degradation. India should incorporate disaster risk reduction measures in refugee management, especially in regions prone to natural disasters.

## PRACTICE QUESTION

Q. Examine the challenges faced by refugees and the receiving nations. Also, suggest a way forward for India in addressing the refugee crisis. (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

The global refugee crisis has reached unprecedented levels, with over 11.73 crore people forcibly displaced by the end of 2023, according to the United Nations High Commissioner for Refugees (UNHCR). This displacement is driven by factors such as conflict, persecution, and environmental degradation. India, historically a refugee-receiving nation, faces unique challenges due to the absence of a comprehensive refugee policy.

### CHALLENGES FACED BY REFUGEES:

- Shelter and Food:** Refugees often find themselves in overcrowded camps or informal settlements with inadequate shelter and sanitation. For example, in Cox's Bazar, Bangladesh, over 900,000 Rohingya refugees live in dire conditions with limited access to basic necessities.
- Healthcare:** Access to healthcare is often limited, leading to the spread of diseases and high mortality rates. The Zaatari camp in Jordan, housing Syrian refugees, struggles with overwhelmed healthcare systems, making it difficult for refugees to receive treatment.
- Mental Health Issues:** The trauma of fleeing violence, losing loved ones, and facing an uncertain future can lead to significant mental health issues like PTSD, depression, and

anxiety. Refugees from conflict zones such as Syria and Afghanistan often lack access to necessary mental health services.

4. **Lack of Legal Status:** Without official refugee status, many refugees are unable to access basic services, work legally, or move freely. Venezuelan refugees in Colombia, for instance, often lack legal status, limiting their access to essential services.
5. **Xenophobia and Discrimination:** Refugees frequently face discrimination and xenophobia, manifesting in hostility, violence, and exclusion. In South Africa, xenophobic attacks have targeted refugees and migrants, accusing them of taking jobs and resources from locals.

#### **CHALLENGES FACED BY RECEIVING NATIONS:**

1. **Resource Allocation:** Hosting large numbers of refugees can strain a country's resources, including housing, healthcare, education, and public services. Lebanon, which hosts over 1.5 million Syrian refugees, has seen its infrastructure overwhelmed, leading to shortages in essential services.
2. **Employment Pressure:** Refugees often compete with locals for jobs, leading to increased unemployment and social tensions. Uganda, with a refugee population close to 1.5 million, faces pressure on its local job market, particularly in low-skilled sectors.
3. **Security Risks:** There are concerns that refugee flows might be infiltrated by criminal elements or militants, posing logistical and security challenges for border control and law enforcement agencies. Turkey, hosting over 3.7 million Syrian refugees, faces such challenges.

#### **WAY FORWARD FOR INDIA:**

1. **Developing a Comprehensive Refugee Policy:** India should develop a comprehensive refugee law defining the rights and responsibilities of refugees and the obligations of the Indian state. This would standardize procedures for refugee registration, documentation, and access to basic services.
2. **Promoting Livelihood Opportunities:** Providing vocational training, employment opportunities, microfinance, and entrepreneurial opportunities to refugees can help them become self-reliant. Initiatives like the Self-Employed Women's Association (SEWA) could be replicated for refugee empowerment.
3. **Regional and International Cooperation:** India can play a leading role in fostering regional cooperation on refugee issues through platforms like the South Asian Association for

Regional Cooperation (SAARC) and strengthening collaboration with the UNHCR and other international organizations.

4. **Promoting Social Cohesion:** Encouraging initiatives that promote social cohesion between refugees and local communities can reduce social tensions. Cultural exchange programs, community dialogue forums, and joint community service projects can help build understanding.

The global refugee crisis presents complex challenges that require a multi-faceted approach. India, as a key player in the region, must balance humanitarian concerns with national interests. Developing a comprehensive refugee policy, strengthening regional cooperation, and integrating refugees into the socio-economic fabric can ensure that India continues to uphold its tradition of providing refuge while safeguarding its national security and resources



## 15. INDIA - MALAYSIA RELATIONS

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > International relations > India Malaysia Relations

#### REFERENCE NEWS:

- During a visit by Malaysian Prime Minister Anwar Ibrahim to India, both countries decided to elevate their bilateral ties to a 'Comprehensive Strategic Partnership.' This upgrade comes after years of strained relations and aims to rebuild and strengthen cooperation across various sectors. The discussions between Prime Minister Narendra Modi and Prime Minister Anwar Ibrahim reflected a mutual desire to move beyond past tensions and focus on future collaboration.

#### **Highlights of Recent India-Malaysia Bilateral Summit:**

- **Upgrade to Comprehensive Strategic Partnership:** India and Malaysia elevated their ties, reflecting deeper cooperation across multiple sectors.
- **Enhanced Economic and Trade Relations:** The summit emphasized boosting bilateral trade, which reached USD 20.01 billion in FY 2023-24, and discussed trade settlement in Indian Rupees.
- **Key Agreements Signed:** MoUs focused on workers' mobility, digital technology, cultural exchanges, education, and defense cooperation.
- **Palm Oil Production Collaboration:** Malaysia proposed working with India on palm oil production, benefiting both nations.
- **Support for Malaysia's BRICS Membership:** India agreed to back Malaysia's bid to join the BRICS grouping.
- **Geopolitical and Regional Security:** Both leaders stressed the importance of regional stability, freedom of navigation, and peaceful dispute resolution in the Indo-Pacific.
- **Addressing Extremism:** Discussions included the need to combat extremism and radicalism, signaling broader security cooperation.
- **Strengthened Defense Ties:** The summit reinforced military cooperation, including joint ventures and training.
- **Humanitarian Aid:** India agreed to supply Malaysia with 200,000 metric tons of white rice to support its food security.
- **People-to-People Ties:** The summit highlighted cultural, tourism, and educational exchanges to strengthen the connection between the nations.

## HISTORICAL CONTEXT OF RELATIONS

- The strong foundation of India-Malaysia relations can be traced back to the personal friendship between India's Prime Minister Jawaharlal Nehru and Malaysia's Tunku Abdul Rahman in the 1960s.
- Over the years, multiple high-level visits have strengthened bilateral ties, and the countries share a significant people-to-people connection, with approximately **2.75 million Persons of Indian Origin (PIO)** residing in Malaysia, making it the **third-largest Indian diaspora globally**.
- India and Malaysia's relationship, **established in 1957**, has evolved over the decades, marked by significant milestones such as the **2010 Strategic Partnership** and the **2015 Enhanced Strategic Partnership**.
- The recent upgrade to a **Comprehensive Strategic Partnership** during Malaysian Prime Minister Anwar Ibrahim's visit to India in 2024 marks a significant step in strengthening ties, particularly after several years of tensions.

## AREAS OF COOPERATION:

- **Economic and Commercial Relations:**
  - **Bilateral Trade:** Trade between the two countries reached USD 20.01 billion in FY 2023-24. Malaysia is India's 16th largest trading partner, **while India ranks among Malaysia's top 10 trading partners**. Malaysia is also **India's 3rd largest trading partner within ASEAN**.
  - **Key Exports from India:** Mineral fuels, aluminum, meat, machinery, and electrical equipment.  
**Key Imports from Malaysia:** Palm oil, mineral fuels, electrical machinery, and animal/vegetable fats.
- **Investments:**
  - **Malaysia's Investments in India:** Malaysia ranks as the 31st largest investor in India, with an FDI inflow of USD 3.3 billion. Malaysian companies like Petronas and Gentari are significant investors in India's renewable energy and infrastructure sectors.
  - **India's Investments in Malaysia:** Over 150 Indian companies operate in Malaysia, with investments totaling over USD 2.62 billion. Key sectors include manufacturing, IT, and healthcare, with prominent companies like Biocon Malaysia and Wipro having a significant presence.
- **Bilateral Initiatives and Collaborations:**
  - **Trade Settlement in Indian Rupees:** This mechanism, operational since April 2023, allows trade between India and Malaysia to be settled in INR.

- **ASEAN-India Business Summit 2023:** Organized in Kuala Lumpur, focusing on enhancing business ties between ASEAN countries and India.
- **India-ASEAN Startup Summit 2023:** Held in Kuala Lumpur, featuring participation from 35 Indian startups.
- **Defense Cooperation:**
  - Defense relations have steadily grown, with the MoU on Defense Cooperation signed in 1993 as the cornerstone of defense ties. Recent developments include:
    - **Amendment to the MoU in 2023:** Expanding cooperation in joint ventures, procurement, and training.
    - **12th MIDCOM Meeting (2023):** Held in New Delhi, focusing on enhancing defense collaboration.
    - **Naval Engagements:** Regular port visits by Indian Navy ships to Malaysia and participation in key defense exhibitions like LIMA and DSA.
- **Education Cooperation:**
  - **Indian Students in Malaysia:** Approximately 4,400 Indian students study in Malaysia, mainly in engineering, medicine, and business administration.
  - **Malaysian Students in India:** Around 3,000 Malaysian students are enrolled in Indian institutions. Scholarships and exchange programs under the Indian Technical & Economic Cooperation (ITEC) and Indian Council for Cultural Relations (ICCR) enhance academic ties.
- **Cultural and Traditional Medicine Cooperation:**
  - **Indian Cultural Centre in Kuala Lumpur:** Established in 2010 and renamed the Netaji Subhas Chandra Bose Indian Cultural Centre in 2015.
  - **Traditional Medicine Cooperation:** An MoU signed in 2010 has facilitated exchanges in Ayurveda and other traditional systems of medicine.
- **Indian Community in Malaysia**
  - Malaysia hosts the third-largest Indian diaspora in the world, with 2.75 million PIOs (about 6.8% of Malaysia's population). The Indian community plays a significant role in Malaysia's socio-economic fabric.
- **Tourism and Civil Aviation Cooperation:**
  - **Tourism:** India is the 5th largest source country for inbound tourism to Malaysia. Visa-free travel for Indian nationals was announced by Malaysia for 2024, and India reciprocated with double-entry tourist visas for Malaysian nationals.
  - **Civil Aviation:** As of May 2024, 211 flights operate weekly between India and Malaysia, connecting Kuala Lumpur with 11 destinations in India.
- **COVID-19 Assistance and Vande Bharat Mission:**
  - Malaysia was included in the first phase of India's Vande Bharat Mission in May 2020. By March 2022, around 110,000 Indian nationals were repatriated from

Malaysia through 670 flights under this mission. Additionally, Malaysia facilitated the return of 367 Indian detainees through chartered flights.

### SIGNIFICANCE OF INDIA MALAYSIA RELATIONS:

- **Strategic and Geopolitical Importance:**
  - India and Malaysia's strategic ties are vital within the **Indo-Pacific**, where both countries hold significant roles. Prime Minister Modi highlighted **Malaysia as a key partner in ASEAN and the Indo-Pacific**, emphasizing the need for freedom of navigation and peaceful dispute resolution, crucial for regional maritime security.
  - For instance, during the recent summit Prime Minister Anwar Ibrahim praised **India's "multi-aligned approach"** as a model for global conflict management, stressing the importance of **India-Malaysia cooperation in ensuring stability in the Indian Ocean**, contrasting it with the histories of the Atlantic and Pacific Oceans.
- **Technological and Digital Collaboration:**
  - The recent summit highlighted the growing importance of digital and technological collaboration between India and Malaysia. Both Prime Ministers discussed advancing cooperation in digital technologies, including **semiconductors, fintech, artificial intelligence, and quantum computing**. These areas are vital for future economic integration and innovation, aligning with India's broader digital transformation goals.
- **Cultural and Diaspora Ties:**
  - Malaysia hosts one of the largest Indian diasporas, with approximately 2.75 million Persons of Indian Origin (PIOs). This community plays a vital role in maintaining **strong people-to-people connections**. Both leaders acknowledged the shared **multicultural, multi-ethnic, and multi-religious identities of India and Malaysia**, recognizing the importance of further strengthening these ties through cultural exchanges and educational collaborations.
- **Defense and Security Cooperation:**
  - Defense ties between India and Malaysia have strengthened significantly, with both nations conducting joint military exercises like **Exercise Harimau Shakti** to enhance interoperability and counter-terrorism capabilities.
  - Prime Ministers Modi and Ibrahim have agreed to further expand military collaboration, including joint border operations. Malaysia's interest in acquiring **Indian defense equipment, such as light fighter jets**, highlights the strategic importance of this growing partnership.
  -



### CHALLENGES IN INDIA-MALAYSIA RELATIONS:

- **Diplomatic Tensions over Domestic Policies:**
  - Malaysia's criticism of India's internal policies, particularly the **Citizenship Amendment Act (CAA)** and the **abrogation of Article 370 in Jammu and Kashmir**, has led to diplomatic friction. Former Malaysian Prime Minister Mahathir Mohamad's comments on these issues sparked tensions, resulting in a temporary decline in bilateral relations.
- **Extradition of Zakir Naik:**
  - India has repeatedly requested the extradition of Zakir Naik, a **controversial preacher** wanted on charges of hate speech and money laundering. Malaysia's refusal to extradite him, citing insufficient evidence, has been a persistent point of contention between the two countries.
- **Trade and Economic Disputes:**
  - In response to Malaysia's criticism of India's domestic policies, India reduced its imports of Malaysian palm oil, one of Malaysia's key exports. This trade restriction had significant economic impacts and highlighted the vulnerability of economic ties to political disagreements.
- **COVID-19 Pandemic:**
  - During the COVID-19 pandemic, hundreds of Malaysians were detained in India during lockdowns, further straining diplomatic relations. The handling of these detainees and the broader disruptions caused by the pandemic exacerbated existing tensions between the two nations.
- **Regional Security Concerns:**
  - While both countries are committed to regional stability, differing approaches to security issues in the South China Sea and broader Indo-Pacific region can pose challenges. Malaysia's cautious stance on China's influence contrasts with India's more assertive approach, creating potential friction in their strategic alignment.

### WAY FORWARD:

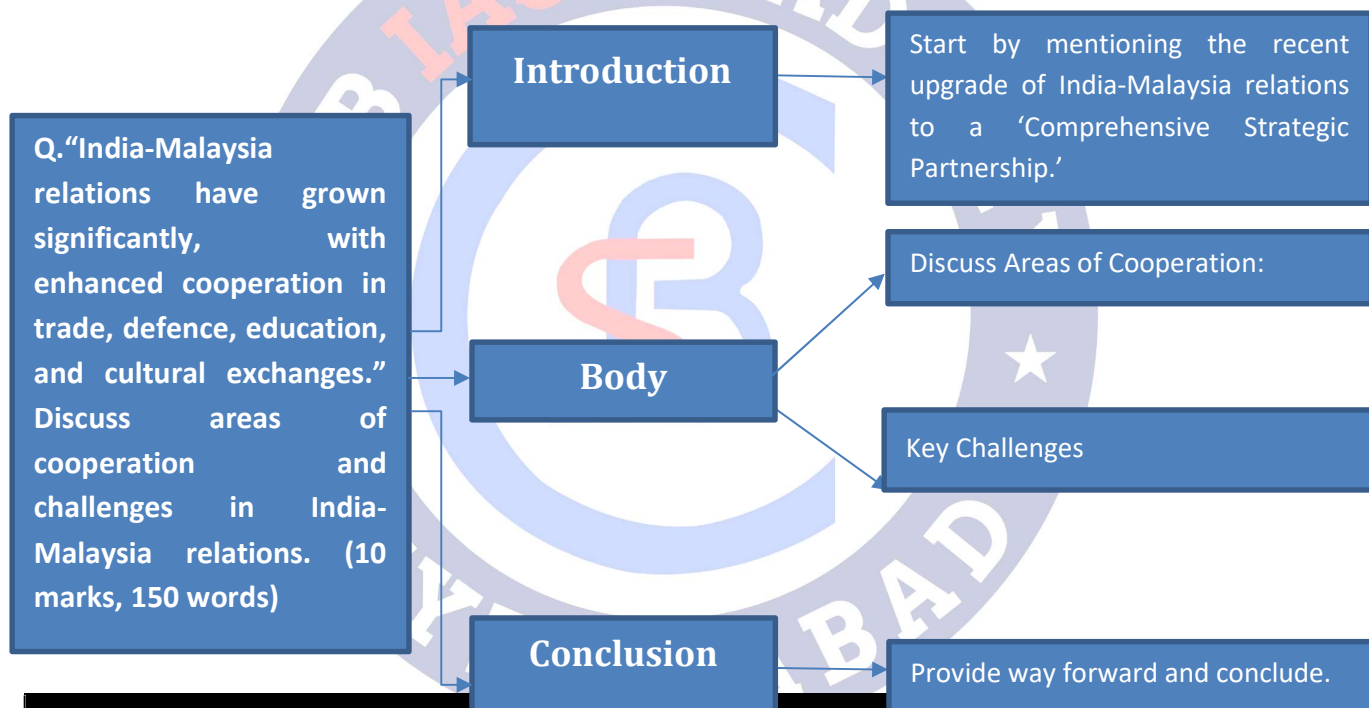
- **Enhance Diplomatic Dialogue:** Maintain regular high-level meetings to address sensitive issues and strengthen bilateral relations.
- **Boost Economic Cooperation:** Accelerate the review of CECA to include sectors like fintech and defense, and expand trade using local currencies.
- **Expand Defense Ties:** Increase joint military exercises and defense technology partnerships to enhance regional security.

- **Leverage Cultural Connections:** Promote cultural and educational exchanges, especially with the large Indian diaspora in Malaysia.
- **Align on Regional Security:** Strengthen cooperation in ASEAN to support India's Act East Policy and manage regional challenges effectively.

## PRACTICE QUESTION

Q. "India-Malaysia relations have grown significantly, with enhanced cooperation in trade, defence, education, and cultural exchanges." Discuss areas of cooperation and challenges in India-Malaysia relations. (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

India-Malaysia relations have witnessed significant growth, marked by enhanced cooperation in trade, defense, education, and cultural exchanges. The recent upgrade to a '**Comprehensive Strategic Partnership**' during Malaysian Prime Minister Anwar Ibrahim's visit to India exemplifies the commitment of both nations to deepen ties across various sectors. However, challenges persist, which need to be addressed to sustain and further strengthen this partnership.

### Areas of Cooperation

- **Trade and Economic Cooperation:** India and Malaysia have strong trade relations, with bilateral trade reaching USD 20.01 billion in FY 2023-24. Both nations continue to work on enhancing trade by reviewing agreements such as the Comprehensive Economic Cooperation Agreement (CECA) and expanding into sectors like fintech, semiconductors, and defense. Additionally, initiatives like trade settlements in local currencies (INR and MYR) aim to reduce dependency on global currencies, further boosting economic resilience.
- **Defense Cooperation:** Defense ties between India and Malaysia have strengthened through joint military exercises, such as *Exercise Harimau Shakti*, which focuses on enhancing interoperability and counter-terrorism capabilities. Malaysia's interest in acquiring Indian defense equipment, such as light fighter jets, highlights the strategic importance of their defense cooperation for regional security.
- **Geopolitical and Regional Security:** India and Malaysia share common interests in regional stability, particularly in the Indo-Pacific region. Both countries emphasize the importance of freedom of navigation and peaceful dispute resolution, aligning with India's Act East Policy. Malaysia's support for India's stance on regional security issues further solidifies this partnership.
- **Educational and Cultural Exchanges:** Malaysia hosts one of the largest Indian diasporas, with approximately 2.75 million Persons of Indian Origin (PIOs). This diaspora plays a crucial role in fostering people-to-people connections. Both nations are committed to promoting educational exchanges and cultural collaborations, which strengthen socio-cultural bonds and contribute to the overall relationship.
- **Technological and Digital Collaboration:** Both countries are increasingly focusing on digital and technological cooperation. Areas like fintech, artificial intelligence (AI), quantum computing, and semiconductors are emerging as key sectors for collaboration, supporting future economic integration and innovation.

### Challenges in India-Malaysia Relations

- **Diplomatic Tensions Over Domestic Policies:** Diplomatic strains have arisen due to Malaysia's criticism of India's internal policies, particularly the Citizenship Amendment Act (CAA) and the abrogation of Article 370 in Jammu and Kashmir. These issues have impacted bilateral relations and require careful diplomatic handling to avoid further friction.
- **Extradition of Zakir Naik:** India's repeated requests for the extradition of Zakir Naik, who is wanted for hate speech and money laundering, have been denied by Malaysia. This

ongoing issue remains a point of contention between the two countries and hinders mutual trust.

- **Trade and Economic Disputes:** Trade relations have faced challenges, particularly in sectors like palm oil. In response to Malaysia's criticism of India's policies, India reduced its imports of Malaysian palm oil, affecting economic ties and highlighting the vulnerability of trade relations to political disagreements.
- **Regional Security Concerns:** Differences in approach to regional security, particularly regarding China's influence in the South China Sea, create strategic challenges. While Malaysia adopts a cautious stance, India's approach is more assertive, leading to potential friction in their regional alignment.
- **Environmental and Climate Challenges:** Disputes over the environmental impact of palm oil production and deforestation have created additional friction in the relationship. Both countries need to address these concerns collaboratively, balancing economic growth with environmental sustainability.

#### Way Forward:

- **Maintain Diplomatic Dialogue:** Regularly address sensitive issues through high-level talks.
- **Strengthen Economic Ties:** Focus on emerging sectors like fintech and defense.
- **Coordinate on Regional Security:** Align strategies in the Indo-Pacific.
- **Enhance Cultural and Educational Exchanges:** Deepen people-to-people connections.
- **Address Environmental Issues:** Collaborate on sustainable development.

India-Malaysia relations have grown significantly, marked by enhanced cooperation in multiple areas. However, challenges such as diplomatic tensions, trade disputes, and regional security concerns remain. Addressing these challenges through sustained dialogue and collaboration will be crucial for further strengthening the partnership, contributing to regional stability and mutual prosperity.

## 16. INDIA - MALDIVES

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > International Relations >> Bilateral Relations

#### REFERENCE NEWS:

External Affairs Minister S Jaishankar concluded a crucial visit to Male, assuring the country's top leadership that the Maldives remains an important partner of India in maintaining peace, stability and prosperity in the Indian Ocean region. Mr. Jaishankar's visit highlights the importance of the Maldives, India's maritime neighbour, as a key partner in the '**Neighbourhood First**' policy and India's Vision '**SAGAR**' i.e. Security and Growth for All in the Region.

#### INDIA-MALDIVES OVER THE TIMELINE:

**Pre-Independence and Early Years (Pre-1965):** India and the Maldives have had historical ties due to their proximity, with interactions primarily limited to trade and cultural exchanges. The Maldives' geographic location in the Indian Ocean made it a natural neighbour to India.

**Early Years: Post-Independence (1965-1980s):** This period involved diplomatic engagement as India was one of the first to recognise Maldives soon after its independence in 1965. This move was largely driven to ensure stability in Indian Ocean region.

**Operation Cactus: Strengthening Strategic Ties (1980s-1990s):** Operation Cactus to thwart a coup attempt underscored the geopolitical significance of India as a security provider in the region.

**Growing Economic and Developmental Partnership (1990s-2000s):** This era was marked by developmental assistance for infrastructure development through soft loans and grants. This period also saw **People-to-People Ties** strengthening through educational exchanges and medical tourism.

**Strategic Partnerships and Security Cooperation (2000s-2010s):** For a deeper maritime security cooperations both nations involved in joint naval exercises such as Dosti mooted SAGAR doctrine. As terrorism threat grew, both had counter terrorism efforts through training and capacity enhancement. China's involvement in large-scale infrastructure projects, such as the construction of the China-Maldives Friendship Bridge, was seen by India as part of Beijing's broader strategy of encircling India, often referred to as the "String of Pearls."

**Strained Relations and Political Instability (2012-2018):** With changes in government and increasing authoritarianism under President Abdulla Yameen who pursued closer ties with China, leading to a deterioration in India-Maldives relations. The cancellation of a contract with Indian company GMR to develop the Male International Airport in favour of a Chinese company was a significant diplomatic setback. India engaged in **quiet diplomacy** to manage the situation, refraining from overt intervention but maintaining pressure on the Maldivian government through diplomatic channels.

**Reset and Renewal: Restoring Strategic Depth (2018-Present):** India and the Maldives have renewed their strategic partnership, focusing on infrastructure development, health, education, and disaster management. India announced a \$1.4 billion financial assistance package to help the Maldives manage its debt and develop critical infrastructure. India continuing to assist in capacity building of the Maldivian National Defence Force (MNDF) also handed over a **Dornier aircraft** to the Maldives, enhancing its surveillance capabilities.

India's support for the Maldives' successful bid to chair the Indian Ocean Commission (IOC) in 2021 underscores its strategy of bolstering **regional multilateralism** and promoting a **rule-based order** in the Indian Ocean region.



**10 REASONS WHY MALDIVES IS IMPORTANT FOR INDIA**

- 1 Strategically located in the Indian Ocean, Maldives archipelago comprising 1,200 coral islands lies next to key shipping lanes which ensure uninterrupted energy supplies to countries like China, Japan and India
- 2 Since China started to send naval ships to Indian Ocean roughly 10 years ago –and right up to Gulf of Aden in the name of anti-piracy operations – Maldives' significance has steadily grown and now it's at the heart of international geopolitics
- 3 As the pre-eminent South Asian power and a 'net security provider' in the Indian Ocean region, India needs to cooperate with Maldives in security and defence sectors
- 4 China's massive economic presence in Maldives is a major concern for India. With the country now said to owe 70% of its external aid to China, many believe that Yameen has done to Maldives what Rajapaksa did to Sri Lanka. India had to push back at some stage and the current political crisis might just have offered India the right opportunity
- 5 A large section of population which supports the opposition parties like Nasheed's MDP wants India to act against Yameen
- 6 Maldives is also a member of Saarc. It is important for India to have Maldives on board to maintain its leadership in the region. Maldives was the only Saarc country which seemed reluctant to follow India's call for boycott of Saarc summit in Pakistan after the Uri attack
- 7 Under Yameen, radicalisation grew rapidly and it was often said that archipelago accounted for one of the highest numbers of foreign fighters in Syria in terms of per capita. India can ill-afford a neighbour which fails to check Islamic radicalisation
- 8 India and Maldives share ethnic, linguistic, cultural, religious and commercial links. India was among the first to recognise Maldives after its independence in 1965 and later established its mission at Malé in 1972
- 9 There are 25,000 Indian nationals living in Maldives (second largest expatriate community). Indian tourists also account for close to 6% of tourists Maldives receives every year
- 10 India is also a preferred destination for Maldivians for education, medical treatment, recreation and business. According to MEA, more and more Maldivians are seeking long term visa for pursuing higher studies/ medical treatment in India

## STRAIN IN THE RELATIONSHIP:

### Political Instability in the Maldives

- **Internal Political Conflicts:** The Maldives has experienced significant political instability, including the ousting of democratically elected governments, allegations of corruption, and rising authoritarianism.
- **Shifts in Government Policies:** For instance, while President Ibrahim Solih's administration has been more aligned with India, previous governments under Abdulla Yameen had closer ties with China, creating fluctuations in bilateral relations.

### China's Growing Influence

- **Economic Influence:** China's Belt and Road Initiative (BRI) has led to significant Chinese investment in the Maldives, including major infrastructure projects like the China-Maldives Friendship Bridge.
- **Strategic Concerns:** India is wary of the Maldives potentially falling into a debt trap with China, similar to what has been observed in other countries involved in the BRI. The possibility of the Maldives becoming more dependent on China could shift the regional balance of power, challenging India's strategic interests in the Indian Ocean.

### Domestic Anti-India Sentiments

- **"India Out" Campaign:** There has been a rise in anti-India sentiments in some segments of the Maldivian population, driven by nationalist groups and political opposition. This campaign has created diplomatic challenges, forcing India to tread carefully to avoid fueling further anti-India rhetoric.
- **Media Influence:** Maldivian media, sometimes influenced by political opposition, has played a role in stoking anti-India sentiments. This has complicated India's public diplomacy efforts and necessitated a more nuanced approach to engagement with Maldivian civil society and the broader public.

### Security and Strategic Concerns

- **Maritime Security:** The Indian Ocean is a strategically vital region, and both India and the Maldives are concerned about non-state actors, piracy, and potential military incursions by external powers.
- **Militarization Concerns:** There are sensitivities in the Maldives about becoming overly militarized or too dependent on India for security, especially with regards to India's

increasing presence in the region, such as the deployment of helicopters and other military assets.

### Economic Dependencies and Debt Issues

- **Debt Repayment Pressures:** The Maldives' economic dependency on external aid and investment, particularly from China, creates vulnerabilities. India's financial assistance and infrastructure investments are often framed as counterweights to Chinese influence, but the debt burden from both sources poses long-term challenges for the Maldivian economy.
- **Tourism Dependency:** The Maldives' economy is heavily dependent on tourism, which has been significantly impacted by the COVID-19 pandemic. Economic recovery has been slow, and while India has provided economic support, including a \$250 million aid package during the pandemic, the overall economic instability creates challenges in sustaining robust bilateral relations.

### Environmental and Climate Change Issues

- **Rising Sea Levels:** As a low-lying island nation, the Maldives is highly vulnerable to climate change, particularly rising sea levels. India has committed to assisting the Maldives with climate adaptation measures, but the scale of the challenge requires sustained and substantial international support, which can be a point of contention in bilateral and multilateral negotiations.
- **Sustainable Development Conflicts:** The balance between economic development and environmental sustainability is a challenge. While India supports the Maldives' development, there are concerns about the environmental impact of large infrastructure projects, particularly those funded by external powers like China.

### HOW TO SAIL THROUGH TOUGH TIMES:

#### Deepening Strategic Cooperation

- **Enhanced Security Collaboration:** Joint naval exercises, intelligence sharing, and counterterrorism efforts can be expanded. India's support in enhancing the capabilities of the Maldivian National Defence Force (MNDF) can help mitigate concerns about external threats, including piracy and terrorism.
- **Infrastructure Development with Sensitivity:** Transparent and consultative project planning can help address concerns about over-dependence on external powers and the environmental impact of development activities.



### Managing the China Factor

- **Balanced Diplomacy:** By offering alternative models of development assistance that are less likely to lead to debt dependency, India can provide a counterbalance to Chinese investments.
- **Promoting Regional Cooperation:** India can work with other regional players through forums like the Indian Ocean Rim Association (IORA) to build a regional consensus on maintaining stability and preventing external powers from gaining undue influence in the Indian Ocean.

### Addressing Domestic Sentiments

- **Engaging with Civil Society:** To counter the "India Out" campaign and similar sentiments, India should engage more directly with Maldivian civil society, media, and youth. Public diplomacy efforts, including cultural exchanges, scholarships, and people-to-people initiatives, can help build a positive image of India in the Maldives.
- **Transparent Communication:** India should ensure that its actions, particularly in the security and economic domains, are communicated transparently to the Maldivian public. This can help counter misinformation and reduce suspicion of Indian intentions.
- **Training of 1000 civil servants by India**

### Supporting Economic Resilience

- **Tourism Cooperation:** Given the importance of tourism to the Maldivian economy, India could facilitate greater Indian tourist inflows to the Maldives through promotional campaigns and easier travel protocols. Joint tourism initiatives could also be explored.
- **Economic Diversification:** India can assist the Maldives in diversifying its economy beyond tourism, providing expertise and investment in areas like fisheries, renewable energy, and digital economy.

### Climate Change and Environmental Cooperation

- **Climate Adaptation Support:** India should continue to support the Maldives in addressing climate change challenges, including rising sea levels. Collaborative projects in renewable energy, sustainable tourism, and disaster management can be key areas of focus.
- **Multilateral Engagement:** India can help amplify Maldivian concerns on climate change in international forums, advocating for greater global action on climate finance and adaptation support for small island nations.

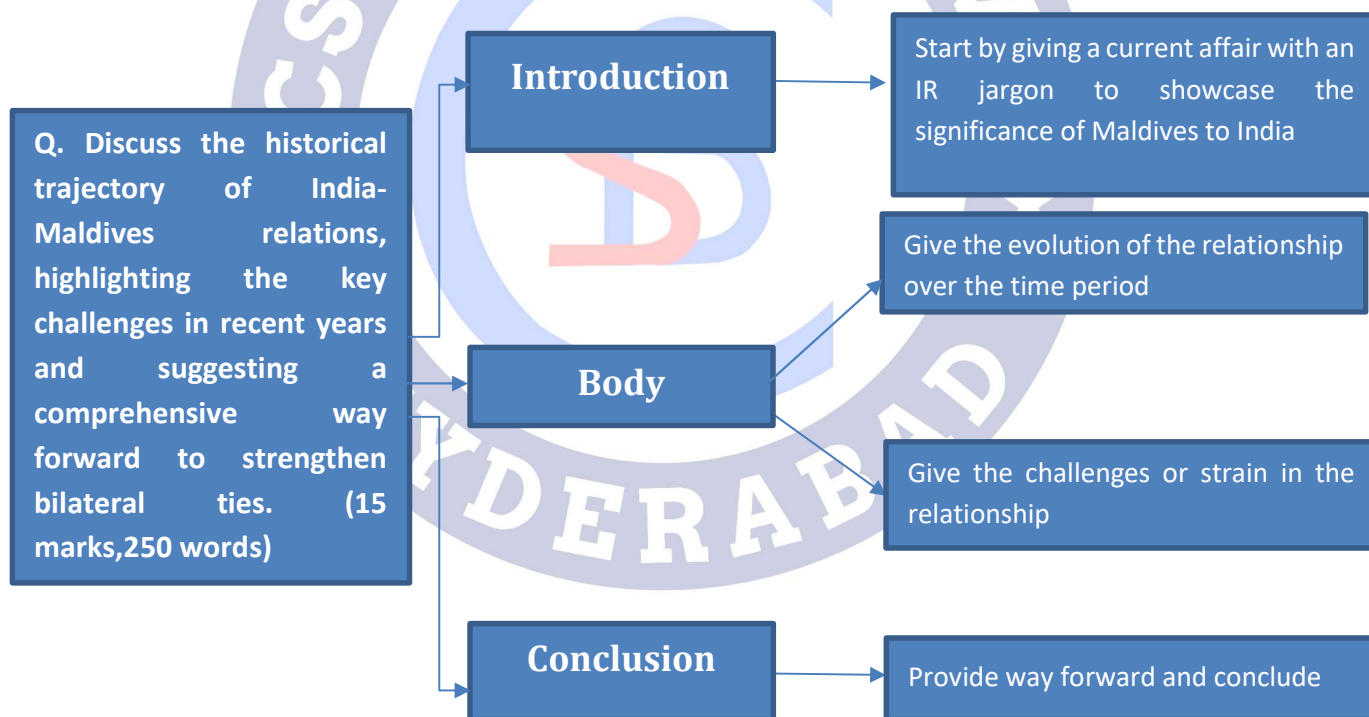
## Political Stability and Diplomatic Engagement

- **Non-Interference with Active Support:** While respecting Maldivian sovereignty and non-interference in its internal affairs, India should remain a supportive partner, offering diplomatic and economic assistance during times of political instability.
- **Strengthening Multilateral Cooperation:** India can encourage the Maldives to engage more actively in regional organizations like SAARC and IORA, promoting regional stability and economic integration that benefits both nations.

## PRACTICE QUESTION

Q. Discuss the historical trajectory of India-Maldives relations, highlighting the key challenges in recent years and suggesting a comprehensive way forward to strengthen bilateral ties. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

The Maldives, due to its strategic location in the Indian Ocean, holds significant geopolitical importance for India. Over the decades, bilateral relations have evolved, reflecting the changing dynamics of regional and global politics. However, recent years have seen challenges that necessitate a re-evaluation of strategies to ensure the continued strength of this partnership.

### HISTORICAL TRAJECTORY OF INDIA-MALDIVES RELATIONS:

- **Pre-Independence and Early Years (Pre-1965):** The ties between India and the Maldives have deep historical roots, primarily centered around trade and cultural exchanges, due to their geographical proximity.
- **Post-Independence (1965-1980s):** India was among the first nations to recognize the Maldives after its independence in 1965, driven by a strategic intent to maintain stability in the Indian Ocean.
- **Operation Cactus (1980s-1990s):** India's intervention in 1988, to thwart a coup attempt in the Maldives, marked a turning point in the strategic partnership, establishing India as a key security provider in the region.
- **Growing Economic and Developmental Partnership (1990s-2000s):** This period saw an increase in India's developmental assistance to the Maldives, with a focus on infrastructure development, educational exchanges, and medical tourism.
- **Strategic and Security Cooperation (2000s-2010s):** Both nations deepened their maritime security cooperation, including joint naval exercises. The rise of terrorism led to collaborative counterterrorism efforts.
- **Strained Relations (2012-2018):** Political instability and the Maldives' growing closeness with China, particularly during President Abdulla Yameen's tenure, led to strained relations with India. The cancellation of the GMR contract and the "India Out" campaign were significant low points.
- **Reset and Renewal (2018-Present):** Under President Ibrahim Solih, relations were reset, with a focus on restoring strategic depth through infrastructure development, financial assistance, and enhanced security cooperation.

### RECENT CHALLENGES IN INDIA-MALDIVES RELATIONS:

- **Political Instability:** The Maldives has seen significant political turbulence, including shifts in government policies that oscillate between pro-India and pro-China stances.

- **China's Growing Influence:** The increasing Chinese investments under the Belt and Road Initiative (BRI) have raised concerns about the Maldives falling into a debt trap, which could alter the regional balance of power.
- **Domestic Anti-India Sentiments:** The rise of the "India Out" campaign and negative media portrayals have created diplomatic challenges, requiring India to adopt a more nuanced approach.
- **Security Concerns:** Both nations are wary of non-state actors and external military incursions. The presence of Indian military assets in the Maldives has also raised sensitivities about over-dependence.

#### WAY FORWARD:

- **Deepening Strategic Cooperation:** India should enhance security collaboration through joint naval exercises, intelligence sharing, and capacity building of the Maldivian National Defence Force (MNDF).
- **Managing the China Factor:** India must offer alternative models of development assistance to counterbalance Chinese influence, promoting regional cooperation through forums like IORA.
- **Addressing Domestic Sentiments:** Engaging directly with Maldivian civil society, media, and youth through public diplomacy efforts can help counter anti-India sentiments and build a positive image.
- **Supporting Economic Resilience:** India can facilitate greater Indian tourist inflows to the Maldives and assist in economic diversification beyond tourism, particularly in renewable energy and digital economy sectors.
- **Climate Change Cooperation:** Collaborative projects in climate adaptation, sustainable tourism, and disaster management should be prioritized, along with advocating for Maldivian concerns in international forums.

The India-Maldives relationship is at a critical juncture, facing both opportunities and challenges. By adopting a multi-faceted approach that addresses security, economic, and environmental concerns while respecting the Maldives' sovereignty, India can strengthen its ties with this crucial maritime neighbour.

## 17. INDIA - VIETNAM RELATIONS

### IMPACT ANALYSIS

#### SYLLABUS:

GS 2 > International relations > India and Global Regions > India & South East Asia

#### IN NEWS:

- India and Vietnam signed nine agreements during the recent state visit of Vietnamese Prime Minister Pham Minh Chinh to India, which include sectors such as customs, agriculture, legal matters, broadcast media, and tourism. These agreements aim to deepen the comprehensive strategic partnership and foster mutual cooperation.

#### MORE ON NEWS:

- During detailed discussions with Vietnamese Prime Minister Pham Minh Chinh at Hyderabad House in New Delhi, PM Modi outlined a cooperative **stance against "expansionism"** and underscored support for peaceful development.
- The talks led to a new **Plan of Action** to enhance the Comprehensive Strategic Partnership, introducing **new initiatives in defense and security**.
- Prime Minister Narendra Modi emphasized the importance of Vietnam in **India's 'Act-East Policy'** and the **broader Indo-Pacific vision**.
- He highlighted the alignment between India and Vietnam in their approach to maintaining a **free, open, and rules-based Indo-Pacific region**.

#### HISTORY:

- India and Vietnam share historically close and cordial bilateral relations, rooted in their common struggle for **liberation from colonial rule and the national struggle** for independence, led by iconic leaders **Mahatma Gandhi and President Ho Chi Minh**.
- India was the Chairman of the **International Commission for Supervision and Control (ICSC)**, which was formed pursuant to the Geneva Accord of 1954 to facilitate the peace process in Vietnam.
- India initially maintained Consulate-level relations with the then North and South Vietnams and later established full **diplomatic relations with unified Vietnam in 1972**.
- The relations between the two countries were elevated to the level of **"Strategic Partnership"** in 2007. The relations were further upgraded to **"Comprehensive Strategic Partnership"** in 2016.

- Guided by the "Joint Vision for Peace, Prosperity and People" from the 2020 Virtual Summit, and a significant conversation in 2022 between Prime Minister Narendra Modi and General Secretary Nguyen Phu Trong, the two countries celebrated **50 years of diplomatic relations in 2022**, actively working to strengthen their multi-dimensional cooperation.
- The recent visit in August 2024, marking the **first by a Vietnamese premier to India in a decade** and the first since the elevation of ties in 2016, signifies a new era in the strategic partnership between India and Vietnam.

### SIGNIFICANCE OF VIETNAM FOR INDIA:

- **Economic interests:**
  - Both the countries are **among the fastest-growing economies of Asia**. Also, they have a broad convergence of interest with respect to **creating alternative supply chains in Asia** against the China-centric supply chain.
- **Countering Chinese Aggressions:**
  - Both India and Vietnam share concerns over **China's expansionist policies** in the **Indo-Pacific**. Vietnam has been vocal in the **ASEAN group** about China's actions in the South China Sea.
  - For instance, PM Modi, in talks with his Vietnamese counterpart, emphasized their shared commitment to a **free, open, and rules-based Indo-Pacific region**.



China and Taiwan Malaysia Vietnam Brunei Philippines

- **Strategic interests:**
  - Vietnam is crucial in ensuring peace and stability in the Indo-Pacific. This is why Vietnam was made part of the “**Quad Plus**” group of seven countries.
  - India also has strategic investments, such as **ONGC Videsh Ltd (OVL)’s oil exploration project in Block 128** (which is within Vietnam’s Exclusive economic zone) **in the South China Sea.**

The "Quad Plus" concept extends the Quadrilateral Security Dialogue by potentially adding countries like South Korea, Vietnam, and New Zealand, aiming to enhance regional security, economic cooperation, and a unified stance on challenges in the Indo-Pacific.

- **Defence exports:**
  - Through measures like the **Comprehensive Strategic Partnership**, India provides necessary assistance in developing Vietnam’s defence capabilities. This also helps **India to export its defence capabilities.**
  - **For instance**, India handed over 12 high-speed guard boats to Vietnam in 2022: Five of those were built in India, and the rest in a Vietnamese shipyard under India’s USD 100 million Defence Line of Credit.
- **Success of Act East policy:**
  - Vietnam serves as an important partner in India’s “Act East” Policy and in enhancing ties with the other ASEAN countries.
  - For instance, Prime Minister Narendra Modi emphasized the importance of Vietnam as a **key partner in India's "Act East" Policy** and in **strengthening ties with other ASEAN countries.**
- **Cooperation in regional forums:**
  - India and Vietnam closely cooperate in various regional **forums such as ASEAN, East Asia Summit, Mekong Ganga Cooperation, Asia Europe Meeting (ASEM)** besides UN and WTO.
  - Vietnam supports India's bid for a greater role in global platforms, including India’s aspirations for a **permanent seat** in the UN Security Council and membership in the **APEC.**

### **AREAS OF COOPERATION:**

- **Political exchanges:**
  - Regular **high-level visits** have happened between the two nations. For instance, Defence Minister Rajnath Singh paid a three-day visit in June 2022 to Hanoi to strengthen defence and security ties with Vietnam. Also, External Affairs Minister Dr. S. Jaishankar visited Vietnam in October 2023.

- There are several **bilateral mechanisms** at different levels between India and Vietnam. Eg; Joint Commission Meeting at the Foreign Ministers' level and the Foreign Office Consultations and Strategic Dialogue at Secretary-level.
- **Trade and economic cooperation:**
  - Both countries have robust economic and trade relations, with bilateral trade reaching **USD 14.82 billion** in the financial year 2023-2024. India's exports to Vietnam include engineering goods, agricultural products, and pharmaceuticals, while imports are primarily electronic goods and machinery.
  - As of 2024, India's investments in Vietnam are estimated at around USD 2 billion in total, whereas Vietnam has six investment projects in India with total estimated investment of USD 28.55 million.
- **Development partnerships:**
  - India has been providing assistance to Vietnam within the ASEAN framework. Under the **Mekong Ganga Cooperation (MGC) framework**, India has been taking up Quick Impact Projects (QIPs), each valued at US\$ 50,000, in different provinces of Vietnam for development of community infrastructure.

**Mekong Ganga Cooperation (MGC):** The MGC is an initiative by six countries – **India and five ASEAN countries, namely, Cambodia, Lao PDR, Myanmar, Thailand and Vietnam** launched in 2000 for cooperation in tourism, culture, education, as well as transport and communications.

- **Defense Cooperation:**
  - The defense partnership between India and Vietnam has evolved significantly since the **Defence Protocol in 2000**. It now includes intelligence exchanges, support for Vietnam's defense production and logistics, development of naval facilities like Nha Trang, defense dialogues, joint military exercises, and the provision of warships and cruise missiles.
  - For instance, in their recent meeting, PM Modi and PM Chinh lauded the progress under the **Joint Vision Statement on India-Vietnam Defence Partnership towards 2030**, emphasizing enhanced defense collaboration through dialogues, training, and exercises.
- **Cultural cooperation:**
  - The two countries had signed a cultural agreement in 1976. Since then, many channels of cultural cooperation like the establishment of the **Swami Vivekananda Indian Cultural Centre** in Hanoi in 2016 have been established.
  - Both countries have facilitated **simplified visa regime** to promote bilateral tourism. Around 1,69,000 Indians visited Vietnam and 31,000 Vietnamese visited India before the outbreak of the Covid-19 pandemic.



- **Capacity building:**
  - Vietnam has been a large recipient of training programmes under **Indian Technical and Economic Cooperation (ITEC) programme**. Vietnam receives more than 200 training slots annually under ITEC.
- **Indian Community:**
  - An estimated 5500 people from India, including some short-term visitors, constitute the Indian community in Vietnam. A majority of them are based in and around Ho Chi Minh City.

### **CHALLENGES TO STRONGER COOPERATION:**

- **China's trade relations:**
  - China is the largest trading partner for both India and Vietnam. This trade dependency on China as well as its military superiority has led to an approach of cautious engagement between India and Vietnam.
- **Trade deficit:**
  - For the fiscal year April 2023-March 2024, the trade between India and Vietnam was USD 14.82 billion, with India's exports at USD 5.47 billion and imports from Vietnam at USD 9.35 billion, **resulting in a trade deficit of USD 3.88 billion for India.**
- **Limited connectivity:**
  - India has proposed extending the **India-Myanmar-Thailand Trilateral Highway** (IMT highway) to Cambodia, Laos and Vietnam. However, the IMT highway was expected to be finished in 2016 but has not due to bureaucratic and procedural issues on the Indian side.
- **Economic Competition:**
  - Both nations **compete in similar sectors such as textiles and agriculture** in the global market. This competition can sometimes hinder deeper economic ties as they vie for the same market share in third countries.

### **WAY FORWARD:**

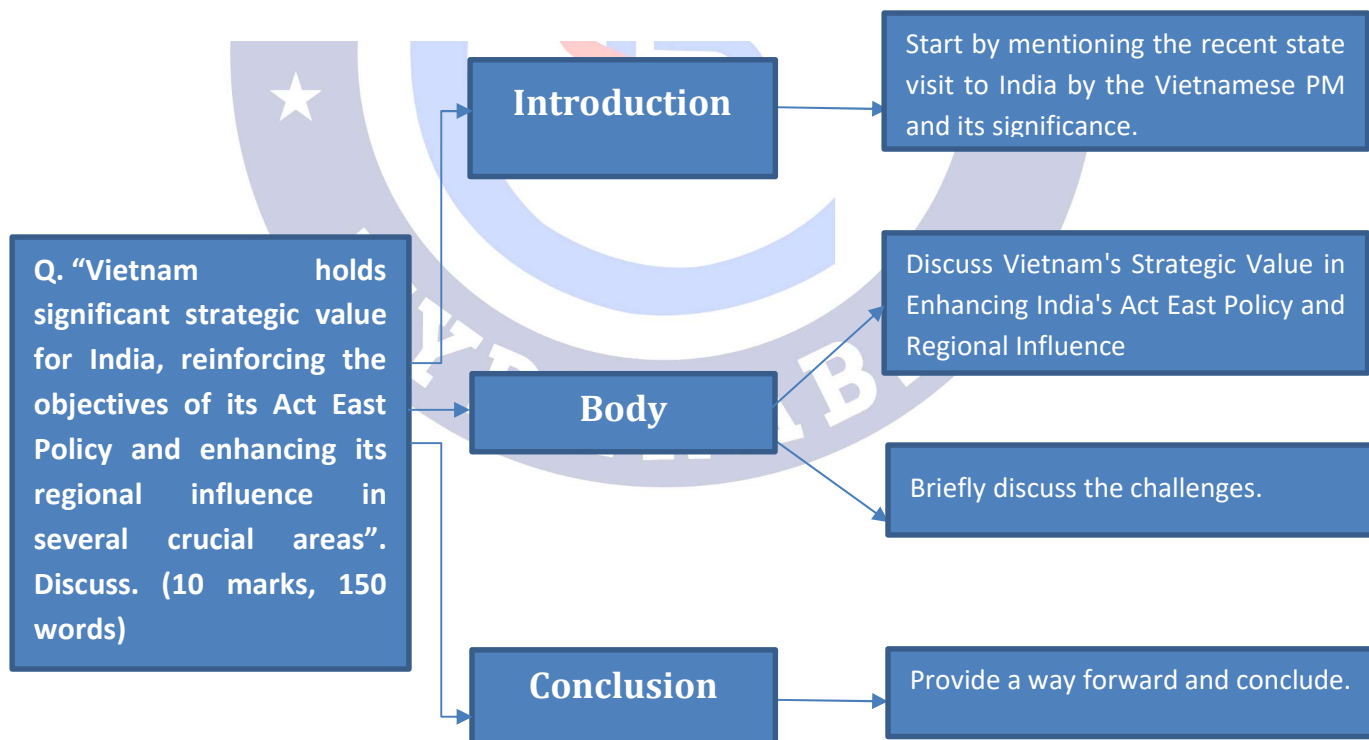
- **Diversify Trade:** Encourage trade diversification into sectors like renewable energy, digital technologies, and high-value agricultural products to reduce over-reliance on specific sectors.
- **Address Trade Deficits:** Set up targeted bilateral mechanisms to regularly address and manage trade deficits.
- **Complete the IMT Highway:** Focus on completing the India-Myanmar-Thailand (IMT) highway extension to Vietnam to boost overland connectivity and economic interaction.
- **Enhance Connectivity:** Improve maritime and air links to facilitate better business, tourism, and cultural exchanges.

- **Expand Military Exercises:** Increase the frequency and scope of joint military exercises focusing on strategic areas such as maritime security and counter-terrorism.
- **Boost Defense Cooperation:** Strengthen defense ties through technology transfer and co-development initiatives to support Vietnam's defense modernization.
- **Cultural Exchanges:** Establish more cultural exchange programs to deepen mutual understanding and cultural ties.
- **Support in Global Platforms:** Work collaboratively in global forums, supporting Vietnam's backing of India's bid for a permanent UN Security Council seat.
- **Strategic Dialogue on China:** Engage in strategic dialogues to manage relations and challenges posed by China, ensuring respect for both nations' strategic interests.

## PRACTICE QUESTION

Q. "Vietnam holds significant strategic value for India, reinforcing the objectives of its Act East Policy and enhancing its regional influence in several crucial areas". Discuss. (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

The strategic significance of Vietnam for India, as reiterated during the **recent state visit of Vietnamese Prime Minister** Pham Minh Chinh to India, is multifaceted. This visit, marking the first in a decade since the elevation of bilateral ties to a **Comprehensive Strategic Partnership in 2016**, underscores the deepening relationship between the two nations. Particularly noteworthy is PM Modi's emphasis on the role of Vietnam within India's **'Act-East Policy'** and its broader **Indo-Pacific vision**.

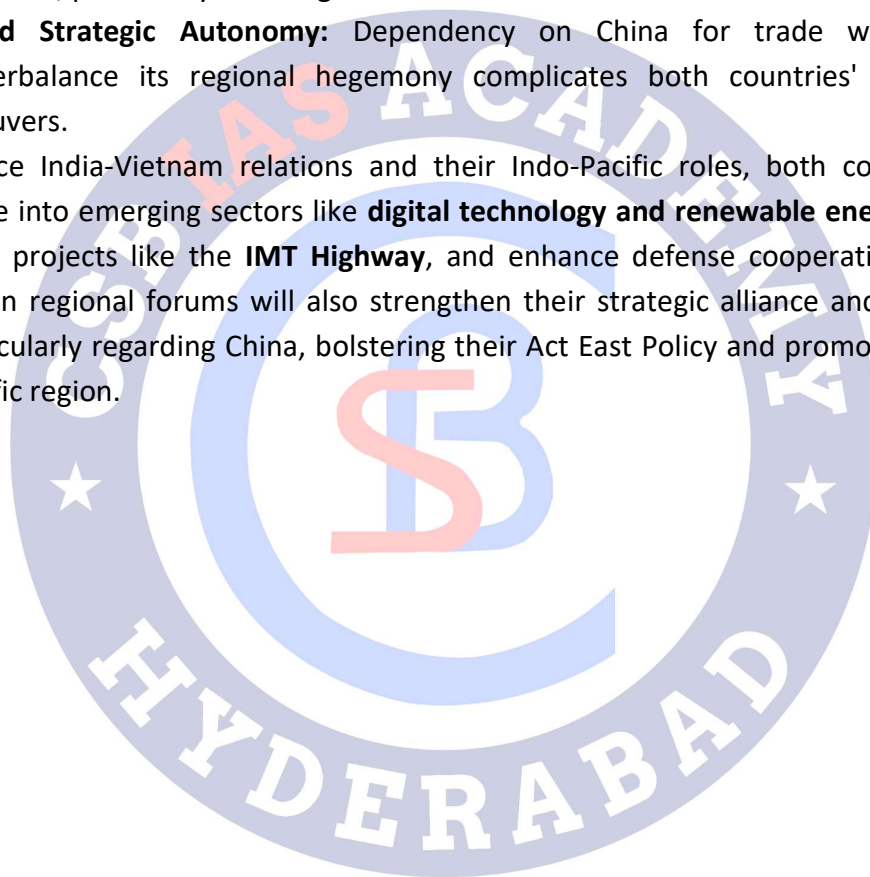
### Vietnam's Strategic Value in Enhancing India's Act East Policy and Regional Influence:

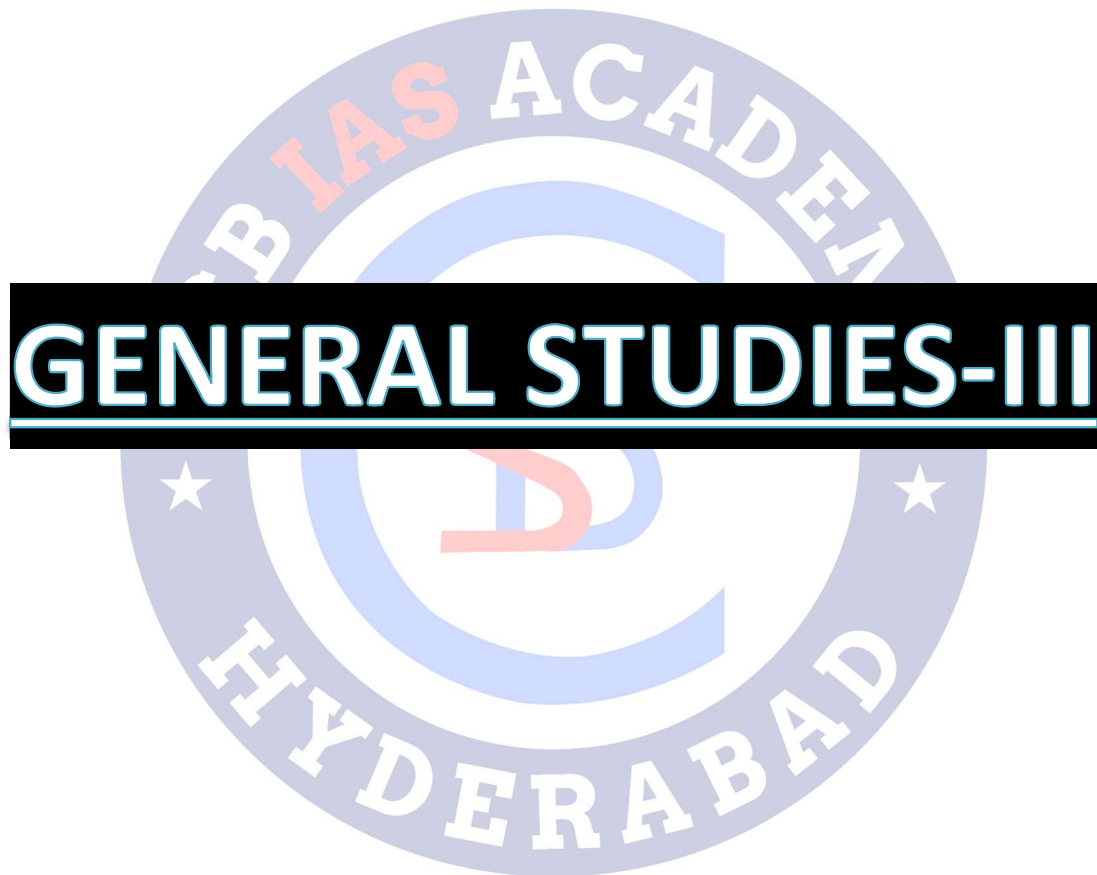
- **Geopolitical Leveraging:** Vietnam's geographical location at the **heart of Southeast Asia** along critical maritime routes in the **South China Sea** is pivotal. The recent visit of Vietnamese Prime Minister underscores this strategic positioning. This visit emphasized the mutual interest in maintaining a **free, open, and rules-based Indo-Pacific region**, aligning directly with India's objectives to ensure **maritime security and freedom of navigation** against aggressive maneuvers, notably from China.
- **Counterbalancing Chinese Influence:** The shared concerns over China's expansionist policies have driven India and Vietnam closer. Both countries have experienced **China's assertive policies** firsthand—**India along its northern borders and Vietnam in the South China Sea**. The bilateral engagement serves as a strategic counterbalance to China's regional ambitions, fostering a coalition that supports a multipolar regional order.
- **Regional and Global Forum Cooperation:** Vietnam's support for India's enhanced role in global platforms, such as its bid for a **permanent seat** at the UN Security Council and membership in the APEC, is crucial. This cooperation extends to various regional forums like **ASEAN and the East Asia Summit**, where both nations collaborate to advance mutual interests in regional stability and development.
- **Strengthening Defense Ties:** The defense cooperation between India and Vietnam has been a cornerstone of their strategic partnership. During the recent state visit, India and Vietnam discussed enhancing the Comprehensive Strategic Partnership with new initiatives in defense and security. For instance, India's provision of **12 high-speed guard boats to Vietnam** under a defense credit line enhances Vietnam's maritime capabilities while opening avenues for **India's defense industry within the region**.
- **Economic Collaboration:** Both countries are among the **fastest-growing economies in Asia**, and their trade relationship has been robust, reaching USD 14.82 billion in the financial year 2023-2024. The recent agreements signed during PM Chinh's visit, covering sectors such as customs, agriculture, and tourism, aim to further deepen economic ties and diversify supply chains away from a **dominant China-centric model**.

### Challenges in India-Vietnam Relations

- **China's Dominance:** Both countries face economic and strategic challenges due to China's dominant role in the region, affecting their trade and security dynamics.
- **Trade Deficit:** India's significant trade deficit with Vietnam, standing at USD 3.88 billion for the fiscal year 2023-2024, poses economic challenges.
- **Infrastructure Delays:** The delay in completing the India-Myanmar-Thailand (IMT) Highway extension to Vietnam hinders connectivity and economic integration.
- **Competitive Overlaps:** Both nations compete in global markets in sectors like textiles and agriculture, potentially straining economic ties.
- **Limited Strategic Autonomy:** Dependency on China for trade while trying to counterbalance its regional hegemony complicates both countries' foreign policy maneuvers.

To advance India-Vietnam relations and their Indo-Pacific roles, both countries should diversify trade into emerging sectors like **digital technology and renewable energy**, accelerate infrastructure projects like the **IMT Highway**, and enhance defense cooperation. Deepening involvement in regional forums will also strengthen their strategic alliance and align security policies, particularly regarding China, bolstering their Act East Policy and promoting stability in the Indo-Pacific region.





## 18. UNIFIED PENSION SCHEME (UPS)

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development > Indian Economy and Issues

#### REFERENCE NEWS:

- The introduction of the Unified Pension Scheme (UPS) by the central government represents a significant shift in the retirement benefits for about 23 lakh central government employees.
- The UPS, which is set to take effect **from April 1, 2025**, promises a substantial improvement over the existing National Pension System (NPS) by assuring a pension equivalent to **50% of the basic salary** for those employees who joined the service **after January 1, 2004**.
- This change addresses longstanding concerns about the **variability of retirement benefits under the NPS**, which has been influenced by market fluctuations.

#### BACKGROUND: TRANSITION FROM OLD PENSION SCHEME (OPS) TO NPS

- The NPS was introduced on **January 1, 2004**, by the Atal Bihari Vajpayee government as a shift from the unfunded OPS to a contributory pension model.
- The key motivation was the **unsustainable fiscal burden of the OPS** due to rising pension liabilities and extended lifespans, facilitated by better healthcare.
- **Under NPS, employees and the government contributed** to the pension fund, which was then invested in schemes with varying risk profiles managed by recognized financial institutions.

#### CRITICISM AND OPPOSITION TO NPS:

- The primary critique of NPS centered around its **non-guaranteed pension outcomes and mandatory employee contributions**, contrasting with the assured pension benefits of the OPS.
- This led to significant dissatisfaction among government employees and has been a focal point for political parties, especially in states reverting to OPS in recent years.

### ESTABLISHMENT OF UPS

- In response to ongoing demands for reinstating OPS-like benefits, a committee led by **T V Somanathan** was formed, which after extensive consultations, recommended the formulation of UPS. The scheme was crafted to merge the **best aspects of both OPS and NPS**, maintaining a **contributory structure** while ensuring **fixed pension benefits**.

### ELIGIBILITY AND OPTION FOR UPS

- **Eligibility:** UPS is available to all central government employees who have retired under NPS since 2004. These retirees will receive arrears adjusted against their previous NPS withdrawals.
- **Choice between UPS and NPS:** Employees have a one-time choice to opt for UPS. While the scheme offers more security and benefits, employees can still choose to remain under the NPS, though it is expected that most will transition to UPS.

### COMPARISON OF PENSION SCHEMES: OPS, NPS, AND UPS

Category	OPS	NPS	UPS
<b>Pension</b>	50% of last basic salary + DA	The pension amount is not fixed since it is paid based on the return on investments made in market-linked instruments managed by professional fund managers.	50% of average basic pay over the last 12 months + DA (for minimum 25 years of service)
<b>Contribution of Employee for Pension</b>	No	Yes (10% of Basic + DA)	Yes (10% of Basic + DA)
<b>Gratuity</b>	Yes	Yes	Yes
<b>Withdrawal of Commuted Corpus</b>	Whole amount of GPF	Employees can withdraw 60% of the corpus upon retirement, which is tax-free and 40% invested in annuities for getting a pension	Not mentioned

<b>GPF(General Provident Fund)</b>	Yes	No	No
<b>Inflation Indexation</b>	Pension increases with the revision of DA twice a year.	No	Pension increases with the revision of DA twice a year.
<b>Contributed Money Lump Sum Payment</b>	Can withdraw once in year	No	No
<b>VRS(Voluntary Retirement Scheme)</b>	Eligible for pension on the Date of VRS	Employee will get only 20% of Commuted Corpus and rest 80% will be invested in annuities for getting a pension	May eligible for pension only after as on date of actual retirement
<b>Minimum Pension</b>	9000/- + DA	No	10000/- + DA after superannuation minimum 10 years of service (it is not mentioned about the minimum pension in case of Death before 10 months)
<b>Family pension in case of Death during service</b>	50% of Basic until 60 years' service, then 30%	OPS to family till date of 60 years' service of deceased employee i.e. 50% of basic After this, 30% of family pension	60% of the last drawn pension

### **BENEFITS OF THE UNIFIED PENSION SCHEME (UPS)**

- **Guaranteed Retirement Income:** The UPS provides a guaranteed pension of **50% of the average basic pay** for employees who have at least 25 years of service. This assurance of a **predictable income post-retirement** represents a **significant shift from the NPS**, which relied on market-linked investment returns, introducing uncertainties in retirement planning.



- **Inflation Protection:** Adjustments based on the All India Consumer Price Index for Industrial Workers (AICPI-IW) protect against inflation, aligning retirees' benefits with current economic conditions. This feature is a significant enhancement compared to the **National Pension System (NPS), which did not offer such indexation**, leading to concerns about the erosion of pension value due to inflation.
- **Family and Minimum Pension Benefits:** The scheme ensures a family pension at **60% of the retiree's pension**, providing financial security to the dependents of the deceased employees. Additionally, it guarantees a **minimum pension of Rs 10,000 per month** for employees with at least 10 years of service, ensuring a basic standard of living for all retirees regardless of their salary scale or tenure.
- **Increased Government Contribution:** With the government's contribution increasing to **18.5% from 14% under the NPS**, the UPS implies a higher investment in the workforce's future, leading to potentially higher retirement benefits. This increase reflects the government's commitment to enhancing the welfare of its employees and can lead to better financial stability for retirees.
- **One-Time Choice and Decision Clarity:** Offers NPS subscribers a one-time choice to switch to UPS, simplifying retirement planning.
- **Potential for Wider Adoption:** Encourages state governments to adopt UPS, potentially standardizing pension benefits across different levels of government.
- **Boost to Public Sector Attractiveness:** By providing better retirement benefits, the UPS could make government jobs more attractive compared to the private sector, which often offers less predictable pension benefits. This could help in attracting talented individuals to public service, improving the quality of government functions and services.

### CONCERNS AND CHALLENGES WITH UPS

- **Financial Sustainability Concerns for UPS:** The Unified Pension Scheme (UPS) presents a substantial fiscal challenge due to its guarantee of a fixed 50% pension based on the last average basic pay for employees with 25+ years of service. This commitment mirrors global trends where pension liabilities have significantly strained government finances, leading to budget deficits and elevated public debt, as seen in the USA and parts of Europe.
- **Inflation Adjustment Adequacy:** The UPS includes inflation adjustments based on the All India Consumer Price Index for Industrial Workers (AICPI-IW), but there's concern about its **adequacy in matching real inflation rates**. Especially during high **inflation periods**,

such as those in the early 2020s, the effectiveness of these adjustments in maintaining retirees' purchasing power has been questioned, with many struggling as pension increases failed to keep pace with actual living cost rises.

- **Implementation Complexity:** Transitioning from NPS to UPS involves significant recalculations and system integrations, akin to the challenging pension transitions experienced in the UK.
- **Impact on Labor Mobility:** The irreversible decision to switch to UPS might limit employees' willingness to leave government service, potentially affecting workforce dynamics.
- **Equity Among Employees:** UPS may disproportionately benefit long-tenured and higher-paid employees, potentially leading to dissatisfaction among lower-paid and newer employees.
- **Potential for Mismanagement:** Large financial schemes like UPS are at risk of mismanagement and corruption without strict governance.
- **Dependence on Government Contributions:** The increase in government contribution rates to 18.5% under UPS raises questions about the government's ability to sustain these levels in the face of competing fiscal demands. **Fluctuations in government revenue, such as those during economic downturns,** could affect the viability of maintaining these contribution rates.
- **Adjustment for Past Retirees:** Integrating past retirees into UPS involves complex recalculations and might lead to legal and satisfaction issues if not handled accurately.

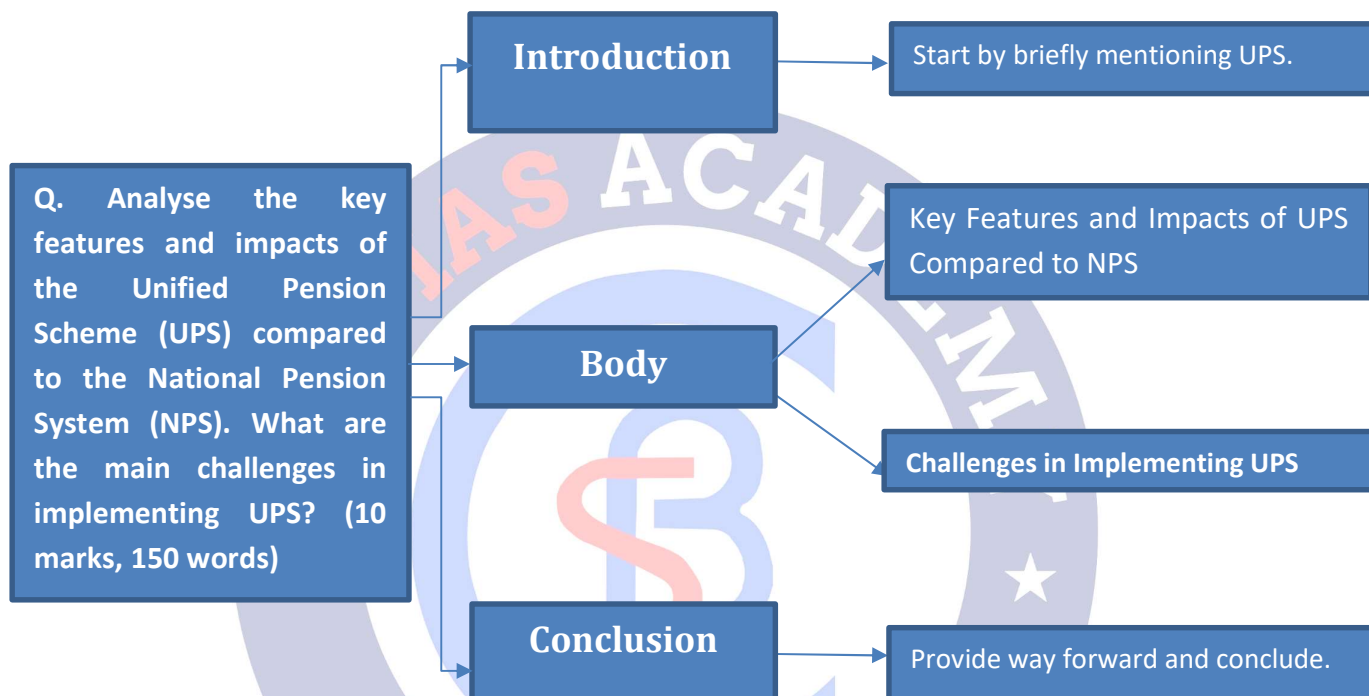
## CONCLUSION

- The Unified Pension Scheme (UPS) represents a significant reform in India's pension landscape, aimed at enhancing the retirement security of government employees. By offering guaranteed pensions and addressing the shortcomings of the previous National Pension System (NPS), UPS promises more **stability and predictability for retirees**. To ensure its success, the government must focus on meticulous implementation, robust governance, equitable benefits distribution, and responsive adjustments to economic changes. If managed effectively, UPS has the potential to improve public sector attractiveness and contribute to the economic stability of the nation, fostering a secure future for government employees.
-

## PRACTICE QUESTION

Q. Analyse the key features and impacts of the Unified Pension Scheme (UPS) compared to the National Pension System (NPS). What are the main challenges in implementing UPS? (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

The Unified Pension Scheme (UPS), introduced by the central government, marks a pivotal change in the pension framework for approximately 23 lakh central government employees. Set to commence from April 1, 2025, UPS aims to substantially enhance the retirement benefits over the existing National Pension System (NPS), which has been criticized for its variability influenced by market fluctuations. This shift addresses the need for more stable and predictable retirement outcomes.

### Key Features and Impacts of the Unified Pension Scheme (UPS) Compared to the National Pension System (NPS):

1. **Guaranteed Retirement Income:** UPS provides a fixed pension at 50% of the average basic pay over the last 12 months for employees with at least 25 years of service, offering a stable income post-retirement unlike NPS, which depends on variable market returns.

2. **Inflation Protection:** UPS includes automatic adjustments based on the All India Consumer Price Index for Industrial Workers (AICPI-IW), ensuring that pensions keep pace with inflation. This feature is absent in NPS, where pensions can lose value in real terms if not manually adjusted.
3. **Family Pension Benefits:** UPS offers a family pension at 60% of the retiree's pension, enhancing financial security for dependents, compared to NPS, which relies on the terms of the annuity purchased with the pension fund.
4. **Minimum Pension Guarantee:** UPS guarantees a minimum pension of Rs 10,000 per month after a minimum of 10 years of service, providing a safety net for all retirees, a benefit not typically included in NPS.
5. **Equity and Predictability:** UPS provides a more equitable pension structure, ensuring predictable benefits for all eligible government employees, whereas NPS benefits can vary significantly depending on investment performance and the timing of retirement.

#### Challenges in Implementing UPS:

1. **Financial Sustainability:** The UPS's fixed 50% pension promise for employees with 25+ years of service could significantly strain government finances, risking budget deficits and increased public debt, akin to challenges faced by pension systems in the USA and Europe.
2. **Inflation Adjustment Concerns:** UPS pension adjustments, tied to the All India Consumer Price Index for Industrial Workers (AICPI-IW), may not adequately match real inflation rates during high inflation periods, risking a reduction in retirees' purchasing power.
3. **Complex System Integration:** Transitioning from the market-driven NPS to the fixed-benefit UPS requires extensive recalculations and system integrations. This process is complex and can be fraught with administrative challenges, similar to those experienced during pension reforms in the UK.
4. **Impact on Labor Mobility:** The irreversible decision to opt for UPS may deter employees from exiting government service, affecting labor mobility. This can lead to workforce stagnation, where employees stay in their roles not out of preference but due to pension benefits.
5. **Equity Issues Among Employees:** UPS may disproportionately favor long-tenured and higher-paid employees, potentially leading to dissatisfaction among those with shorter tenures or lower salaries. This discrepancy could create an unequal pension landscape within the public sector, impacting employee morale and fairness perceptions.

#### Way Forward:

- **Financial Sustainability:** Implement robust financial planning to ensure the long-term viability of UPS.

- **Streamlined Implementation:** Develop and execute a clear, phased approach to transition from NPS to UPS smoothly.
- **Engage Stakeholders:** Continuously involve stakeholders in discussions to refine UPS and address potential concerns effectively.
- **Regular Reviews:** Conduct periodic evaluations to adjust UPS policies in response to economic changes and inflation.

By implementing these strategic steps, UPS can achieve a sustainable and equitable pension framework that enhances the security and attractiveness of public sector employment.



## 19. CORPORATISATION OF SCIENTIFIC RESEARCH IN INDIA

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Science and Technology

#### REFERENCE NEWS:

Corporatisation of science research — a process of converting any state-owned entity into a market commodity and being able to follow the business model to support itself, rather than relying on public support. This line of thinking can be seen in the formulation of the Anusandhan National Research Foundation (ANRF). Established under the ANRF Act of 2023, this new mechanism is designed to fund research in the country and to improve linkages between research and development, academia and industry.

The Finance Minister echoed the same in her July 23, 2024 Budget speech: “We will operationalise the ANRF for basic research and prototype development.”

#### SCIENTIFIC RESEARCH ECOSYSTEM IN INDIA:

##### Key Institutions

- **Council of Scientific and Industrial Research (CSIR):** A premier national R&D organization with 38 laboratories working in various scientific and industrial domains.
- **Indian Council of Medical Research (ICMR):** Apex body in India for the formulation, coordination, and promotion of biomedical research.
- **Indian Space Research Organisation (ISRO):** India's national space agency, responsible for space exploration, satellite development, and space research.
- **Defence Research and Development Organisation (DRDO):** Works on research and development in defence technology, with over 50 laboratories across India.
- **Department of Biotechnology (DBT):** Promotes biotechnology research, development, and innovation in India.
- **Indian Institutes of Technology (IITs):** A group of autonomous public technical and research universities that play a major role in scientific research.

- **Indian Institute of Science (IISc):** A premier research institution offering advanced research and education in science and engineering.
- **Supercomputing Facilities:** National Supercomputing Mission (NSM) to build a network of supercomputers for high-performance computing.

### Legal Framework and Policies

- **Science, Technology, and Innovation Policy (STIP):** Recent policy framework guiding the nation's vision for scientific research and innovation.
- **Intellectual Property Rights (IPR) Laws:** Legal provisions to protect innovations and patents generated from research.
- **Biosafety Regulations:** Govern research in biotechnology, ensuring safe practices in genetic modification and other sensitive areas.
- **Environment Protection Act, 1986:** Regulates scientific research impacting the environment.
- **The Patents Act, 1970:** Legal framework for patenting inventions resulting from scientific research.

### Funding Mechanisms

- **Government Funding:** India's public investment in R&D has stagnated around **0.6-0.7% of GDP**, much lower than global leaders. Department of Science and Technology (DST) provides substantial funding for scientific research across various domains. University Grants Commission (UGC) funds research projects in universities. Department of Biotechnology (DBT) provides grants for biotech research.

### BENEFITS OF CORPORATISATION OF SCIENTIFIC RESEARCH IN INDIA:

- **Access to Private Capital:** Corporatisation allows research institutions to tap into private sector funding, which can significantly augment government budgets. This leads to better resources, infrastructure, and opportunities for large-scale, impactful projects.
  - The Anusandhan National Research Foundation (ANRF) is designed to receive 72% of its funding from the private sector, which could lead to substantial financial support for **cutting-edge research**.
  - In the United States, private sector funding has been pivotal in advancing fields like biotechnology and information technology, where companies like Google,

Microsoft, and Pfizer heavily invest in R&D, often in collaboration with academic institutions.

- **Market-Driven Innovations:** Corporatisation encourages a focus on applied research that meets market needs, leading to faster commercialization of scientific discoveries.
  - Collaboration between India's CSIR labs and private industries has led to the commercialization of various technologies, such as the CSIR-CIMAP (Central Institute of Medicinal and Aromatic Plants) working with herbal and pharma industries to develop marketable products.
  - The Bayh-Dole Act in the U.S. allows universities and small businesses to retain patents from federally funded research, leading to increased commercialization and the growth of tech hubs like Silicon Valley.
- **Bridging the Gap for Industry-Academia Collab:** This collaboration can also enhance the quality of education and research by providing students and researchers with real-world problem-solving opportunities.
  - IITs have established Research Parks that facilitate collaboration between academia and industry, leading to innovations in sectors like information technology, automotive engineering, and clean energy.
  - In countries like Germany, the Fraunhofer Institutes serve as a model where applied research is closely aligned with industrial needs, driving innovation in engineering and technology sectors.
- **Creation of Intellectual Property (IP) and Patents:** Corporatisation leads to the generation of intellectual property (IP) that can be patented, licensed, and sold, providing a revenue stream for research institutions and contributing to economic growth.
  - India's CSIR has developed over 3,000 patents, many of which have been commercialized, generating revenue and fostering innovation.
  - In Japan, the collaboration between universities and industries has led to a surge in patent filings, particularly in sectors like robotics and electronics, contributing to Japan's position as a global leader in technology.
- **Global Competitiveness and Innovation:** Corporatisation can drive innovation by promoting a competitive environment where research outcomes are constantly pushed to meet global standards.



- Indian pharmaceutical companies, through collaborations with research institutions, have developed cost-effective generic drugs, making India a global hub for pharmaceutical manufacturing.
- South Korea has effectively used corporatisation in research, particularly in its electronics and automotive sectors, leading to global giants like Samsung and Hyundai. The country's investment in R&D, supported by both government and private sector funding, has propelled it to the forefront of global innovation.
- **Sustainability and Long-Term Research Funding:** engaging the private sector, research institutions can reduce their dependence on fluctuating government budgets, ensuring more stable and sustainable funding streams.
  - The development of renewable energy technologies in India, supported by public-private partnerships, has led to significant advances in solar and wind energy, contributing to the country's energy security.
  - The European Union's Horizon 2020 program encourages public-private partnerships, ensuring sustained funding for research in areas like climate change, healthcare, and digital innovation.

#### CHALLENGES OF CORPORATISATION OF SCIENTIFIC RESEARCH IN INDIA:

- **Neglect of Basic and Curiosity-Driven Research:** Corporatisation often prioritizes **market driven outcomes** leading to a neglect of basic, **curiosity-driven research**, which may not have immediate applications but is crucial for **long-term scientific advancement**.
  - Historically, foundational scientific discoveries (e.g., the development of quantum mechanics) were not driven by commercial interests, yet they have had enormous long-term impacts on technology and society.
- **Erosion of Research Autonomy:** With increasing private sector involvement, there is a risk that research agendas could be shaped more by corporate interests than by scientific inquiry, potentially leading to biased research outcomes.
  - A study published in the **Journal of the American Medical Association (JAMA)** found that industry-sponsored research tends to produce more favourable results for the sponsor's product compared to independent studies.
- **Inequality in Research Funding:** Corporatisation can lead to a concentration of resources in fields that promise high returns on investment, while other important but less profitable research areas may be neglected.

- According to a report by **NITI Aayog**, while India's IT sector is a major recipient of R&D funding, sectors like agriculture and basic sciences struggle to attract private investment, leading to imbalances in research development.
- **Risk of Intellectual Property Concentration:** there is a risk that intellectual property (IP) generated from research could be monopolized by private entities, limiting broader societal access and use.
  - The high cost of patented medicines, such as in the case of cancer drugs, has often been cited as a barrier to access in low- and middle-income countries, including India.
- **Diminished Focus on Socially Relevant Research:** Research that addresses societal needs, such as public health, rural development, or environmental conservation, might be underfunded if it is not seen as profitable by private investors.
  - Globally, diseases like malaria and tuberculosis, which predominantly affect lower-income populations, receive less than 10% of global health R&D funding, despite accounting for more than 90% of the global disease burden.
- **Potential for Short-Term Focus:** Private funding can lead to a short-term focus, with companies seeking rapid returns on investment, potentially discouraging long-term, high-risk research that could yield significant breakthroughs in the future.
  - The **Harvard Business Review** has highlighted that private sector R&D often emphasizes "quick wins" over "moonshot" projects, which require sustained investment and long-term vision.
- **Ethical and Regulatory Concerns:** Corporatisation might lead to compromises in ethical standards, especially if there is pressure to produce results quickly or at lower costs.
  - The **Bhopal Gas Tragedy** in 1984, though not directly related to research, is a stark reminder of how corporate negligence can lead to catastrophic consequences, underscoring the need for strict ethical and regulatory controls.
- **Dependence on Fluctuating Private Funding:** Research funding from the private sector can be volatile, influenced by market conditions, corporate profits, and shifts in business priorities, leading to instability in research projects.
  - The 2008 financial crisis saw a significant reduction in private sector R&D spending globally, particularly in industries like automotive and aerospace, affecting long-term research projects.

### WAY FORWARD:

**Strengthening Public Funding for Basic Research:** Raise public R&D expenditure to at least 1% of GDP, focusing on sectors like agriculture, environmental science, and fundamental research in

natural sciences. Establish dedicated public funds for critical research areas that are less likely to attract private investment, ensuring balanced growth across all scientific fields.

- A **National Basic Science Fund** could be created to support fundamental research in physics, chemistry, and biology.

**Establishing Clear Ethical and Regulatory Frameworks:** Set up independent ethics committees within research institutions to oversee projects funded by the private sector, ensuring adherence to ethical standards. Mandate transparency in research funded by corporate entities, including the disclosure of funding sources and potential conflicts of interest.

- Implement policies similar to the **National Institutes of Health (NIH)** in the U.S., which requires detailed reporting of funding sources and conflicts of interest.

**Ensuring Autonomy and Academic Freedom :** Legislate protections for the academic freedom of researchers, ensuring that corporate funding does not dictate research outcomes or limit the scope of inquiry. Promote funding models that blend public and private investments, ensuring that institutions are not overly dependent on corporate funding.

- Implement a **matching grant system** where government funding matches private contributions, fostering balance and preventing over-reliance on any single source.

**Encouraging Collaborative Research and Knowledge Sharing:** Foster open science initiatives where publicly funded research results are made freely accessible to the global community, ensuring broader dissemination of knowledge. Develop **innovation clusters** that bring together universities, research institutions, and industries to collaborate on high-impact research with shared goals.

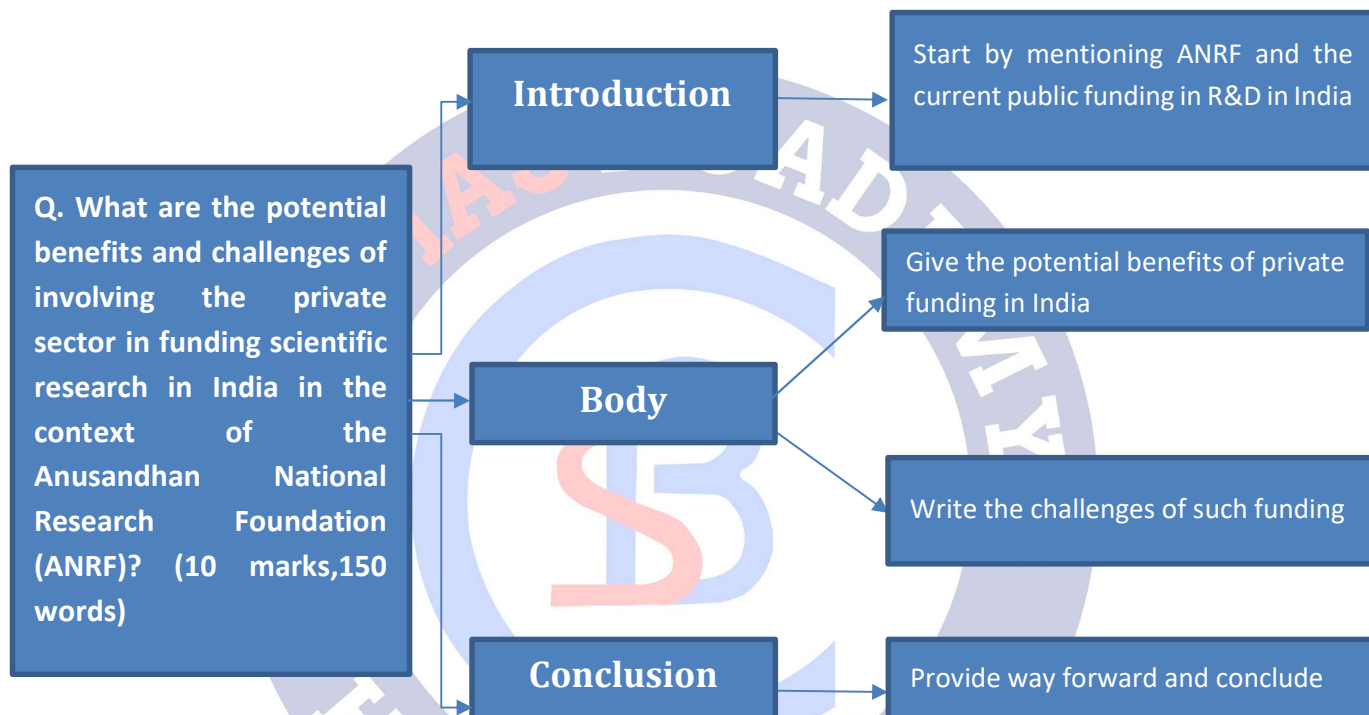
**Building Capacity and Infrastructure for Research:** Develop state-of-the-art research facilities in emerging fields such as artificial intelligence, biotechnology, and renewable energy, with both public and private investments. Enhance training programs for researchers to navigate the complexities of corporate funding while maintaining research integrity.

**Monitoring and Evaluation Mechanisms:** Establish mechanisms for the continuous monitoring and evaluation of corporatised research projects to ensure they meet national scientific goals and maintain ethical standards. Create a **National Research Audit Office** to review and assess the outcomes of corporately funded research projects periodically. Develop feedback systems that allow researchers, institutions, and the public to provide input on the effectiveness and impact of corporatised research.

## PRACTICE QUESTION

Q. What are the potential benefits and challenges of involving the private sector in funding scientific research in India in the context of the Anusandhan National Research Foundation (ANRF)? (10 marks,150 words)

## APPROACH



## MODEL ANSWER:

With Anusandhan National Research Foundation came into being through 2023 ANRF Act, it is designed to receive 72% of its funding from the private sector, which could lead to substantial financial support for **cutting-edge research**. Since only 0.6-0.7% of R&D funding is government sponsored there is a need for corporatisation of R&D.

### BENEFITS OF PRIVATE SECTOR INVOLVEMENT IN FUNDING SCIENTIFIC RESEARCH

1. **Increased Financial Resources:** The ANRF is set to receive ₹50,000 crore over five years, with 72% of this funding expected to come from private sources. This substantial investment can significantly boost research activities and infrastructure.

2. **Accelerated Commercialization of Research:** Private sector funding often focuses on applied research with immediate market potential, facilitating the faster commercialization of scientific discoveries.
3. **Strengthened Industry-Academia Collaboration:** Private sector involvement can foster stronger collaborations between academia and industry, aligning research with real-world needs and improving the relevance of research outputs.
4. **Development of Intellectual Property:** Private funding can lead to the creation of valuable intellectual property, which can be patented and licensed, generating revenue for research institutions.

### CHALLENGES OF PRIVATE SECTOR INVOLVEMENT IN FUNDING SCIENTIFIC RESEARCH

1. **Neglect of Basic Research:** Private sector funding may prioritize research with immediate commercial applications, potentially sidelining fundamental research that is essential for long-term scientific progress.
2. **Erosion of Research Autonomy:** Private sector funding might exert pressure on research agendas, potentially skewing research towards corporate interests rather than scientific curiosity.
3. **Inequality in Research Funding:** There is a risk that resources may become concentrated in commercially viable areas, leading to underfunding of less profitable but socially important research.
4. **Risk of Intellectual Property Monopolization:** Corporate control over intellectual property resulting from funded research can restrict broader access to innovations and technologies.
5. **Short-Term Focus:** The private sector's focus on quick returns can lead to a preference for incremental innovations over long-term, high-risk research projects.

To balance these aspects, it is essential to implement strategies that safeguard the integrity of research while leveraging the benefits of private sector funding. This includes increasing public funding for fundamental research, establishing clear ethical and regulatory frameworks, fostering equitable public-private partnerships, and ensuring research autonomy. India can optimize the role of private funding in advancing its scientific research landscape by increasing its government funding to 1% of GDP and setting regulatory standards without compromising the quality of research.

## 20. DENGUE VACCINATION

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Science and Technology

#### REFERENCE NEWS:

The Indian Council of Medical Research (ICMR) and Panacea Biotech Limited announced the initiation of the first ever phase 3 clinical trial for a dengue vaccine in India. The trial will evaluate the efficacy of India's indigenous tetravalent dengue vaccine, DengiAll has been developed by Panacea.

#### DENGUE SITUATION IN INDIA

Dengue is a **mosquito-borne viral infection**, which is increasing in numbers and geographical spread. Globally, the incidence of dengue has gone up from 5,05,430 cases in 2000 to 5.2 million in 2019, according to the World Health Organisation (WHO). In India, the disease has spread from just eight states and Union Territories in 2001 to all states by 2022, with the last bastion of Ladakh being breached that year.

- Dengue is a major public health concern in India, which ranks among the top 30 countries with the highest incidence of the disease.
- The global incidence of dengue has been steadily increasing over the past two decades, with more than 129 countries reporting the dengue viral disease by the end of 2023, according to the World Health Organization.
- In India, approximately 75-80% of infections are asymptomatic, yet these individuals can still transmit the infection through the bite of **Aedes** mosquitoes.
- Among the 20-25% of cases where symptoms are clinically apparent, children are at a significantly higher risk of hospitalisation and mortality. In adults, the disease can escalate into severe conditions, including dengue haemorrhagic fever and dengue shock syndrome.
- The dengue virus has four serotypes — 1-4 — with low cross-protection against each other, and as a result, individuals can experience repeated infections.
- Currently, there is no antiviral treatment or licensed vaccine against dengue in India. The development of an effective vaccine is complex as good efficacy has to be achieved for all four serotypes. In India, all four serotypes of the dengue virus are known to circulate or co-circulate in many regions.

## HOW DOES DENGUE VACCINE WORK?

A dengue vaccine works by stimulating the immune system to produce antibodies against the dengue virus, which can protect against future infections. Dengue is caused by four closely related viruses (DENV-1, DENV-2, DENV-3, and DENV-4), and an effective vaccine must target all four to provide comprehensive protection.

- **Live Attenuated Vaccines:** Some dengue vaccines use a weakened (attenuated) form of the virus that cannot cause severe disease. The vaccine introduces this attenuated virus into the body, prompting the immune system to recognize it as a threat and produce antibodies.
  - The most well-known example is **Dengvaxia (CYD-TDV)**, developed by Sanofi Pasteur. It is a live attenuated vaccine that targets all four dengue virus serotypes. However, it is primarily recommended for individuals who have had a previous dengue infection, as it has shown to be less effective or potentially risky in those who are dengue-naive
- **Inactivated Vaccines:** These vaccines use viruses that have been killed or inactivated. While they can't replicate or cause disease, they still stimulate an immune response. As of now, this type is still under development and has not yet been widely implemented.
- **Recombinant Subunit Vaccines:** These vaccines use specific proteins from the dengue virus to trigger an immune response without using the whole virus. The immune system responds by creating antibodies specifically against those proteins. This type is also in the research phase and has not yet reached widespread usage.
- **DNA and mRNA Vaccines:** These are newer technologies being explored. They work by introducing genetic material (DNA or mRNA) that instructs cells in the body to produce proteins similar to those found on the dengue virus. The immune system then reacts to these proteins, creating an immune response.
  - Researchers at India's National Centre for Biological Sciences, in collaboration with nine other institutions in India, Africa, and the US, have developed India's DNA vaccine candidate for dengue fever.

Panacea's vaccine uses live, weakened versions of all four dengue serotypes. These weakened versions of the virus were developed by the National Institute of Allergy and Infectious Diseases in the US— they deleted parts of the genetic code of DENV1, DENV3, and DENV4 strains and then genetically engineered a DENV2 backbone, using parts from the weakened DENV 4, on which the others were tacked. These were grown in cell culture by Panacea Biotec to develop the vaccine.

## CHALLENGES IN DENGUE VACCINE DEVELOPMENT:

Developing a dengue vaccine in India faces several challenges, which are rooted in the biological complexities of the virus, the diverse epidemiological landscape, and logistical constraints.

- **Antibody-Dependent Enhancement (ADE):** ADE occurs when antibodies produced after a dengue infection, or vaccination, enhance the severity of subsequent infections with a different serotype. This phenomenon can lead to severe dengue, posing a risk particularly in a country like India, where multiple dengue serotypes are in circulation.
  - The concern about ADE can be compared to the development of vaccines for respiratory syncytial virus (RSV), where early attempts at vaccination led to enhanced disease in vaccinated individuals who later became infected with RSV.
- **Serotype Diversity and Regional Variation:** An effective vaccine must provide immunity against all four serotypes (DENV-1, DENV-2, DENV-3, DENV-4) to be broadly protective. The varying prevalence of serotypes across different regions complicates vaccine development and deployment.
  - The development of the influenza vaccine faces a similar challenge. The flu virus mutates rapidly, and different strains dominate in different regions and seasons. This necessitates regular updates to the flu vaccine formulation and careful monitoring of circulating strains, akin to the need for a dengue vaccine to account for regional serotype variations.
- **Population-Specific Efficacy:** The efficacy of dengue vaccines may vary across different demographic groups due to differences in prior exposure to the virus. In India, with a high proportion of dengue-naïve individuals (those who have never been infected with dengue), vaccines like Dengvaxia have shown limited efficacy and potential risks.
  - This challenge is reminiscent of the difficulties faced during the polio vaccine rollout. The oral polio vaccine (OPV) showed varying efficacy in different parts of the world, partially due to factors like population density, hygiene, and pre-existing immunity from other enteroviruses, which are also relevant in dengue vaccine considerations.
- **Regulatory and Logistical Challenges:** India has a complex regulatory environment, and ensuring the safety and efficacy of a dengue vaccine across a vast and diverse population is a significant challenge. Additionally, logistical issues like cold chain maintenance, distribution in rural areas, and public awareness campaigns add layers of difficulty.
  - The rollout of the COVID-19 vaccines highlighted similar challenges. While India managed a massive vaccination campaign, it faced issues such as vaccine hesitancy, cold chain logistics, and equitable distribution—issues that will also impact the deployment of a dengue vaccine.



- **Economic and Public Health Prioritization:** Given the economic constraints and the competing public health priorities in India, allocating resources for a nationwide dengue vaccination program can be challenging.
  - Similar challenges were seen with the HPV vaccine in India. Despite its proven efficacy in preventing cervical cancer, the vaccine has seen low uptake due to cost concerns and other public health priorities.

### WAY FORWARD:

Sailing through the challenges of dengue vaccine development in India requires a multifaceted approach that combines scientific rigor, public health strategy, and global best practices.

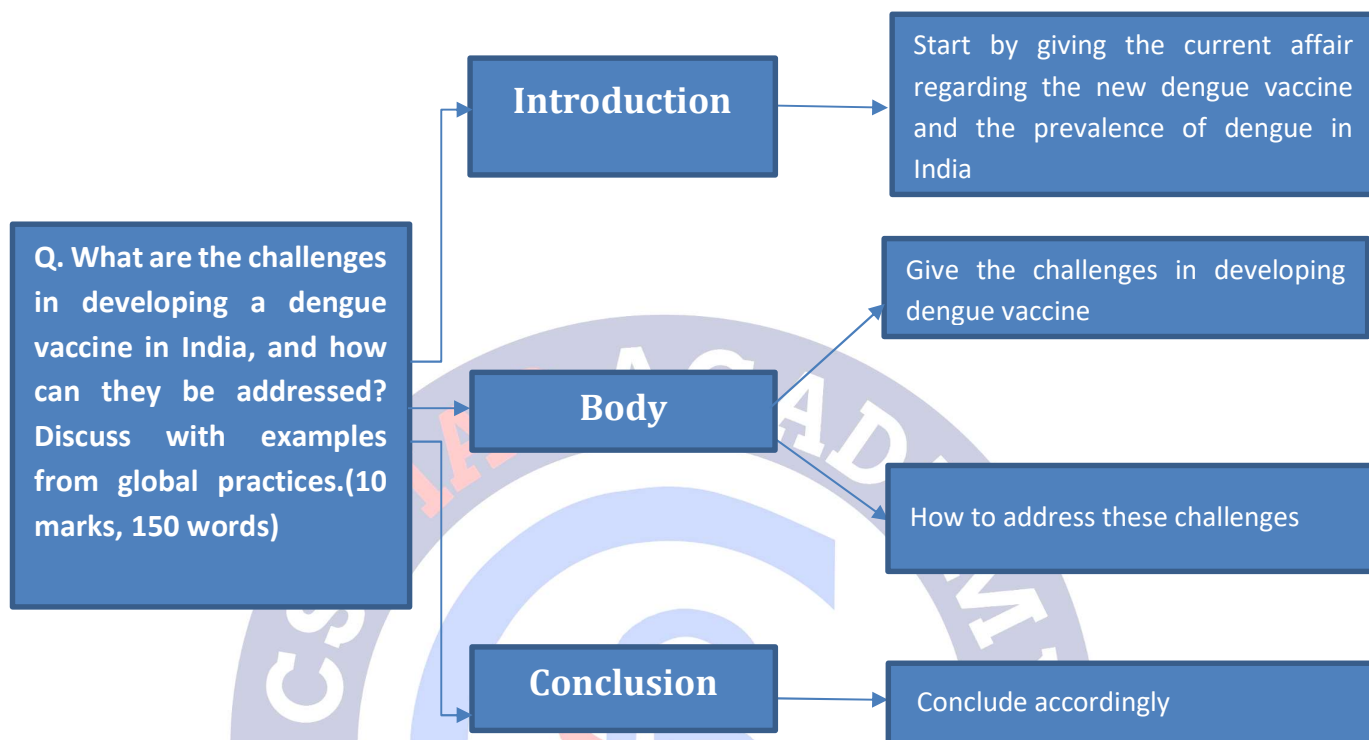
- **Managing Antibody-Dependent Enhancement (ADE):** Implement **targeted vaccination** programs based on serostatus screening to reduce the risk of ADE. This involves vaccinating individuals who have already been exposed to dengue, as they are less likely to experience severe ADE.
  - **Dengvaxia in the Philippines and Brazil** highlighted the importance of serostatus screening. In the Philippines, a lack of pre-vaccination screening led to ADE in some dengue-naïve recipients, causing public health concerns. In contrast, Brazil adopted a more cautious approach, recommending the vaccine only for individuals who had previously been infected with dengue. This approach mitigated the risk of ADE, demonstrating the importance of targeted vaccination based on serostatus.
- **Addressing Serotype Diversity:** Develop and deploy **multivalent vaccines** that provide broad protection against all four dengue serotypes. Continuous monitoring of circulating serotypes and adjusting vaccine strategies accordingly can enhance vaccine efficacy.
  - **Seasonal Influenza Vaccine in the United States:** The U.S. Centers for Disease Control and Prevention (CDC) monitors global influenza trends and adjusts the vaccine composition accordingly. This dynamic approach has been effective in managing influenza outbreaks despite the virus's rapid mutation and diversity.
- **Ensuring Population-Specific Efficacy:** Conduct **population-specific clinical trials** and post-market surveillance to ensure the vaccine's efficacy across different demographic groups. Tailoring vaccine recommendations based on local epidemiology can optimize outcomes.
  - **MenAfriVac in Sub-Saharan Africa:** A vaccine against meningitis A, was developed specifically for the African "meningitis belt" after extensive population-specific research. Clinical trials were conducted across different age groups and regions to ensure its efficacy and safety. The vaccine was introduced through mass campaigns, which led to a dramatic decline in meningitis A cases across the region.

- **Overcoming Logistical Challenges:** Strengthen the **vaccine delivery infrastructure** by improving cold chain management, training healthcare workers, and leveraging digital tools for tracking and distribution.
  - **Polio Vaccination in India:** India's success in eradicating polio was largely due to its robust vaccination infrastructure. The Pulse Polio campaign ensured that vaccines reached even the most remote areas through innovative strategies like deploying mobile vaccination teams and using GIS mapping for monitoring.
- **Addressing Economic and Public Health Prioritization:** Implement **cost-sharing mechanisms** and prioritize dengue vaccination in public health planning, particularly in high-risk areas.
  - **GAVI, the Vaccine Alliance's Work in Low-Income Countries:** Gavi has played a crucial role in making vaccines accessible in low-income countries by providing financial support and negotiating lower prices. For example, Gavi's involvement in the introduction of the pneumococcal vaccine led to widespread adoption in countries that otherwise could not afford it.
- **Enhancing Public Awareness and Acceptance:** Launch **comprehensive public education campaigns** to address vaccine hesitancy and misinformation, ensuring widespread acceptance and uptake.
  - **COVID-19 Vaccination Campaigns Globally:** Countries like Israel and the United Kingdom successfully used public education campaigns to counter misinformation about COVID-19 vaccines. These campaigns involved clear communication from trusted sources, addressing public concerns, and making vaccines easily accessible.

## PRACTICE QUESTION

Q. What are the challenges in developing a dengue vaccine in India, and how can they be addressed? Discuss with examples from global practices.(10 marks, 150 words)

## APPROACH



## MODEL ANSWER

With its increasing geographic spread and the presence of all four dengue virus serotypes, the development of an effective vaccine is crucial yet fraught with challenges. The Indian Council of Medical Research (ICMR) and Panacea Biotec have initiated the first phase 3 clinical trial for an indigenous dengue vaccine, DengiAll, highlighting the urgency of this task.

### CHALLENGES IN DENGUE VACCINE DEVELOPMENT:

1. **Antibody-Dependent Enhancement (ADE):** ADE occurs when antibodies generated from a previous dengue infection or vaccination enhance the severity of subsequent infections with a different serotype. This poses a risk, particularly in India, where multiple serotypes co-circulate.
  - **Example:** Dengvaxia in the Philippines highlighted the risks of ADE when it caused severe outcomes in dengue-naive individuals who received the vaccine without prior serostatus screening.
2. **Serotype Diversity and Regional Variation:** Effective protection requires immunity against all four dengue serotypes. The varying prevalence of serotypes across regions complicates the development and deployment of a broadly protective vaccine.

- **Example:** The influenza vaccine's annual updates to match circulating strains demonstrate the necessity of adapting vaccines to regional virus diversity.
3. **Population-Specific Efficacy:** The efficacy of dengue vaccines can vary across different demographic groups due to differences in prior exposure. In India, where many are dengue-naive, this poses significant challenges.
    - **Example:** The MenAfriVac campaign in Sub-Saharan Africa, tailored to the region's specific epidemiology, shows the importance of conducting population-specific trials and monitoring.
  4. **Regulatory and Logistical Challenges:** Ensuring vaccine safety and efficacy across India's diverse population, along with maintaining cold chain logistics and equitable distribution, adds layers of complexity.
    - **Example:** The rollout of COVID-19 vaccines in India, with challenges like cold chain logistics and vaccine hesitancy, mirrors the hurdles expected in dengue vaccine deployment.
  5. **Economic and Public Health Prioritization:** Allocating resources for dengue vaccination amidst other public health priorities and economic constraints can be challenging.
    - **Example:** The low uptake of the HPV vaccine in India, despite its efficacy, highlights the difficulties in prioritizing public health interventions.

#### WAY FORWARD:

1. **Targeted Vaccination Programs:** Based on serostatus screening, targeting individuals who have already been exposed to dengue can reduce the risk of ADE. Brazil's cautious approach with Dengvaxia provides a model for India.
2. **Development of Multivalent Vaccines:** Continuous monitoring and adjustment of vaccine strategies to address regional serotype diversity are essential, as seen in the CDC's approach to influenza vaccines in the U.S.
3. **Population-Specific Trials:** Conduct extensive trials across India's diverse demographics, similar to MenAfriVac's deployment in Africa, to ensure vaccine efficacy and safety.
4. **Strengthening Infrastructure:** Leveraging India's experience with the polio campaign, enhance cold chain management, healthcare worker training, and use digital tools for vaccine tracking.

5. **Public Awareness Campaigns:** Launch comprehensive education campaigns to counter vaccine hesitancy and misinformation, drawing from the global COVID-19 vaccination experience.

Overcoming the challenges in dengue vaccine development in India requires a multifaceted approach informed by global best practices. By addressing the scientific, logistical, and public health challenges, India can successfully develop and deploy a dengue vaccine, reducing the disease burden and safeguarding public health.



## 21. 10 YEARS OF PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development > Indian Economy and Issues > Financial inclusion

#### REFERENCE NEWS:

- As the Pradhan Mantri Jan Dhan Yojana (PMJDY) marked its 10th anniversary, the Prime Minister lauded the scheme's significant impact on **financial inclusion in India**.
- PMJDY, launched on August 28, 2014, aims to provide universal **access to basic banking services and ensure financial security**, particularly for women, youth, and marginalised communities.

#### PRADHAN MANTRI JAN-DHAN YOJANA (PMJDY):

- Pradhan Mantri Jan-Dhan Yojana (PMJDY) is **National Mission for Financial Inclusion** to ensure access to financial services, namely, a basic savings & deposit accounts, remittance, credit, insurance, pension in an affordable manner.
- Under the scheme, a **basic savings bank deposit (BSBD)** account can be opened in any bank branch or Business Correspondent (Bank Mitra) outlet, by persons not having any other account.

#### BENEFITS UNDER PMJDY:

- **Basic Savings Bank Account:** One basic savings bank account is opened for an unbanked person.
- **No Minimum Balance:** There is no requirement to maintain any minimum balance in PMJDY accounts.
- **Interest on Deposits:** Interest is earned on the deposit in PMJDY accounts.
- **RuPay Debit Card:** RuPay Debit card is provided to PMJDY account holder.
- **Accident Insurance Cover:** Accident Insurance Cover of **Rs.1 lakh (enhanced to Rs. 2 lakh)** for new PMJDY accounts opened after 28.8.2018) is available with the RuPay card issued to the PMJDY account holders.
- **Overdraft Facility:** An overdraft (OD) facility up to **Rs. 10,000** to eligible account holders is available.

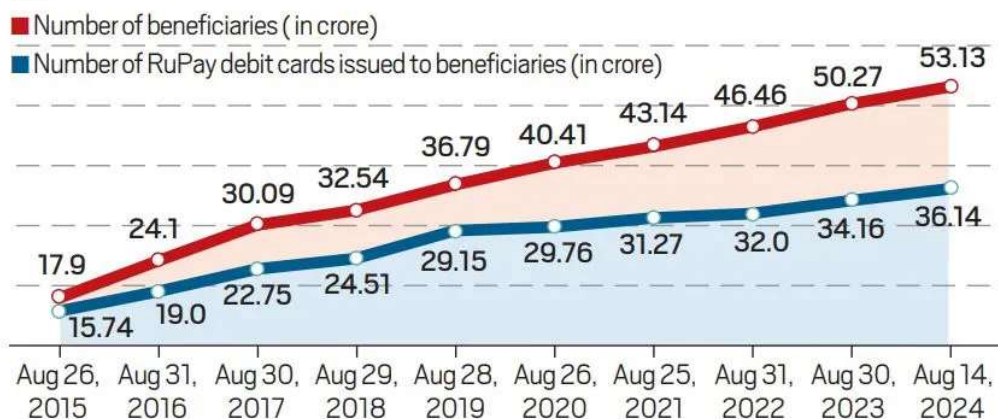
- **Eligibility for Government Schemes:** PMJDY accounts are eligible for Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), Micro Units Development & Refinance Agency Bank (MUDRA) scheme.

### KEY STATISTICS/ PROGRESS:

Key statistics as of **August 2024:**

- **Total Accounts:** As per the Ministry of Finance (*pmjdy.gov.in*), the number of PMJDY accounts stands at **53.13 crore**. These accounts are distributed across:
  - **Rural and Semi-Urban Areas:** 35.37 crore accounts.
  - **Urban Areas:** 17.76 crore accounts.
- **Total Deposits:** The total deposits in these accounts have reached **Rs 2,31,235.97 crore**.
- **RuPay Debit Cards Issued:** A total of **36.14 crore RuPay debit cards** have been issued to PMJDY account holders, facilitating access to digital transactions and banking services.

### PROGRESS OF THE PM JAN DHAN SCHEME



- **Distribution Across Banks**
  - **Public Sector Banks:** The largest share of accounts, **41.42 crore**, is held with public sector banks.
  - **Regional Rural Banks:** 9.89 crore accounts are managed by regional rural banks.
  - **Private Sector Banks:** These banks manage 1.64 crore accounts.
  - **Rural Cooperative Banks:** These banks account for 0.19 crore accounts.
- **State-wise Distribution**
  - **Highest Accounts in Uttar Pradesh:** The state leads with **9.45 crore accounts**, reflecting its large population.
  - **Fewest Accounts in Lakshadweep:** Lakshadweep has the fewest accounts, with **9,256**.

- **Other States:** Fifteen other states, including Bihar, West Bengal, and Maharashtra, each have more than 1 crore PMJDY accounts.

*(The data is sourced from official government reports, particularly those published by the Ministry of Finance and available on the PMJDY official website ( pmjdy.gov.in))*

### **ACHIEVEMENTS AND IMPACTS OF PMJDY:**

- **Massive Account Expansion:**
  - As of August 2024, more than **53 crore PMJDY accounts** have been opened, making it the **world's largest financial inclusion initiative** (Source: Ministry of Finance (pmjdy.gov.in)).
  - For instance, PMJDY set a **Guinness World Record** for the **most bank accounts opened in a single week** as part of a financial inclusion campaign, with over **1.8 crore accounts** opened during its launch week.
- **Financial Inclusion:**
  - The **World Bank's Findex database** reported that **78% of Indian adults** had a bank account in 2021, compared to **53% in 2014**, demonstrating the scheme's success in promoting financial inclusion.
  - The rollout of digital payment solutions, such as the **Unified Payments Interface (UPI)**, launched two years after PMJDY, further enhanced the usability of bank accounts.
- **Direct Benefit Transfer (DBT):**
  - PMJDY accounts became the backbone of the government's DBT system, ensuring quicker and more efficient delivery of benefits to the poor while reducing leakages and eliminating ineligible beneficiaries.
  - For instance, According to the **Reserve Bank of India's Report on Currency and Finance**, DBT and related reforms have resulted in **savings of Rs 3.48 lakh crore** in government schemes like MG-NREGS and PM-Kisan up to March 2023.
- **Deposit Growth:**
  - Total deposits in PMJDY accounts reached **Rs 2,31,235.97 crore** by August 2024, reflecting the increased **trust in the banking system** and the **financial security** provided by the scheme.
- **Banking Infrastructure Expansion:**
  - The implementation of PMJDY significantly boosted demand for

#### **DEPOSITS IN JAN DHAN ACCOUNTS (IN RS CR)**

Aug 26, 2015	22,900.68
Aug 31, 2016	42,094.24
Aug 30, 2017	65,799.46
Aug 29, 2018	82,039.35
Aug 28, 2019	1,02,415.43
Aug 26, 2020	1,30,086.02
Aug 25, 2021	1,45,214.94
Aug 31, 2022	1,72,506.76
Aug 30, 2023	2,02,915.95
Aug 14, 2024	2,31,235.97



- banking services, prompting commercial banks to expand their infrastructure.
- For instance, as per the government data, the **number of branches** of scheduled commercial banks in India **increased by 46%**, from 1,05,992 in 2013 to 1,54,983 in 2023.
  - The **number of ATMs grew by 30%**, from 1,66,894 in 2014 to 2,16,914 in 2024. The number of **POS devices increased from 10.88 lakh to 89.67 lakh** over the last decade.
  - **Gender Inclusion:**
    - Over 29.56 crore accounts **(55.6%) are held by women** (source: Ministry of Finance), highlighting the scheme's success in empowering women financially.
  - **Rural Reach:**
    - Approximately **66.6% of PMJDY accounts are in rural and semi-urban areas**, ensuring that financial services reach the remotest parts of India.
  - **Digital Payment Revolution:**
    - The PMJDY scheme has **catalyzed India's digital payment revolution**, with Unified Payments Interface (UPI) transactions growing from **920 million in FY 2018 to 131.2 billion in FY 2024** (Source: NPCI Annual Report) . RuPay card transactions at points of sale and e-commerce also saw a substantial rise.
  - **Reduction in zero balance accounts:**
    - Although the scheme allows for zero-balance accounts, **only 8.4% of the accounts remain with a zero balance** as of August 2024 (source: PIB).
  - **Global recognition:**
    - The World Bank has recognized PMJDY as a significant achievement in accelerating financial inclusion in India, noting that what could have taken decades was accomplished within a few years, largely due to the **JAM (Jan Dhan-Aadhaar-Mobile) trinity and India's robust digital public infrastructure**.

### CHALLENGES:

- **Connectivity and Infrastructure Issues:**
  - One of the major challenges facing PMJDY is the **inadequate physical and digital connectivity in rural areas**, where about 68% of India's population resides. The **lack of bank branches, ATMs, and reliable internet connectivity** in these regions hampers the effectiveness of the scheme, limiting access to banking services for the intended beneficiaries.
- **Financial Literacy Deficit:**
  - A key challenge for PMJDY is the financial literacy gap among beneficiaries. Many account holders are **unaware of the benefits** like overdraft facilities and insurance coverage, leading to **underutilization and potential mismanagement** of accounts.

- **Low Usage and Dormant Accounts:**
  - Despite millions of accounts being opened under PMJDY, a significant number remain dormant, particularly in rural areas where financial literacy is low. Many beneficiaries use the accounts mainly for receiving government subsidies without regular banking activities. For instance, as per recent reports, while the PMJDY has seen over 53 crore accounts opened, approximately **14% of these accounts were classified as dormant as of August 2024.**
- **Gender Disparity:**
  - Despite holding a significant number of accounts, women's actual usage rate is lower compared to men. Women in conservative rural areas are less likely to use PMJDY accounts independently due to social norms, contributing to a notable gender gap in account usage.
- **Use of Accounts for Fraudulent Activities:**
  - There are concerns about the misuse of PMJDY accounts as mule accounts in fraudulent activities, such as money laundering. For example, following the **demonetization in 2016**, reports surfaced of large sums being deposited into dormant accounts, raising concerns about their potential use in storing black money.
- **Geographic and Social Exclusion:**
  - Certain regions like the North-East, Himachal Pradesh, Uttarakhand, and Jammu & Kashmir face geographic challenges such as **difficult terrain, poor connectivity,** and limited banking infrastructure, hindering PMJDY implementation. Additionally, **marginalized groups, including tribal populations** in remote areas, remain excluded due to these social and geographical barriers.
- **Account Duplication Issues:**
  - The creation of **multiple Jan Dhan accounts under various schemes** has led to data management challenges and hindered accurate tracking of unique beneficiaries. This duplication distorts the actual count of distinct beneficiaries, complicating the scheme's effectiveness.

### WAY FORWARD:

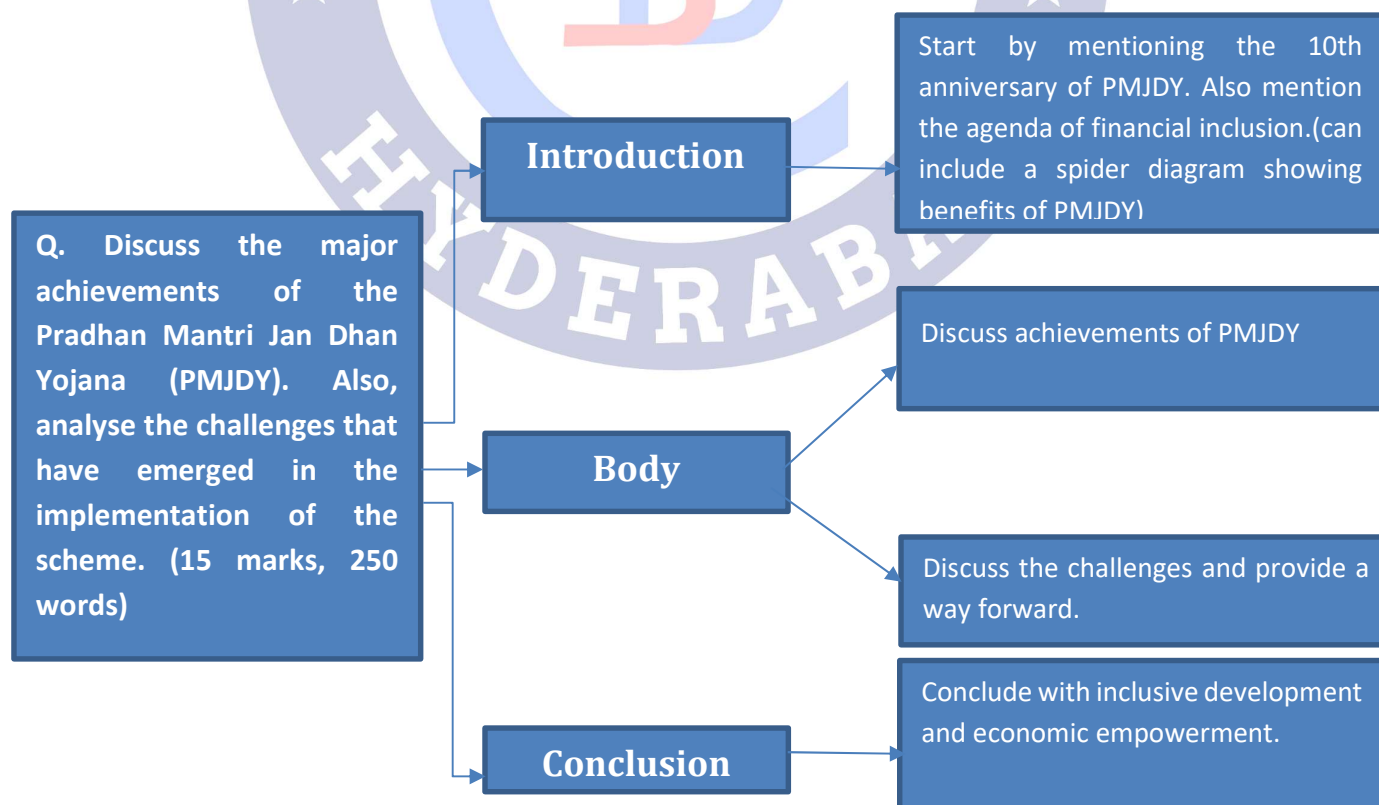
- **Strengthening Infrastructure and Connectivity:** Improve physical and digital infrastructure, particularly in rural and remote areas, by expanding the network of bank branches, ATMs, and ensuring reliable internet connectivity. Encourage the use of Business Correspondents (BCs) to ensure financial services reach underserved regions.
- **Enhancing Financial Literacy:** Launch targeted programs in rural areas, like workshops or mobile education units, to educate beneficiaries about PMJDY benefits such as overdraft facilities.

- **Addressing Account Dormancy:** Implement strategies like cash-back incentives for regular transactions or link PMJDY accounts to services like MNREGA. Example: Offer small bonuses for consistent monthly transactions.
- **Mitigating Gender Disparity:** Promote initiatives like women's self-help groups to encourage independent account use.
- **Preventing Fraud:** Strengthen monitoring with AI-based analytics to detect suspicious activities. Example: Collaborate with banks to flag and review unusual transactions.
- **Addressing Exclusion:** Deploy mobile banking units in remote areas and use satellite connectivity for financial access. Example: Introduce solar-powered ATMs in isolated regions to serve tribal populations.
- **Improving Data Management:** Streamline data management processes to accurately track unique beneficiaries and avoid duplication of accounts. This will enhance the efficiency of the scheme and ensure that resources are allocated appropriately.

## PRACTICE QUESTION

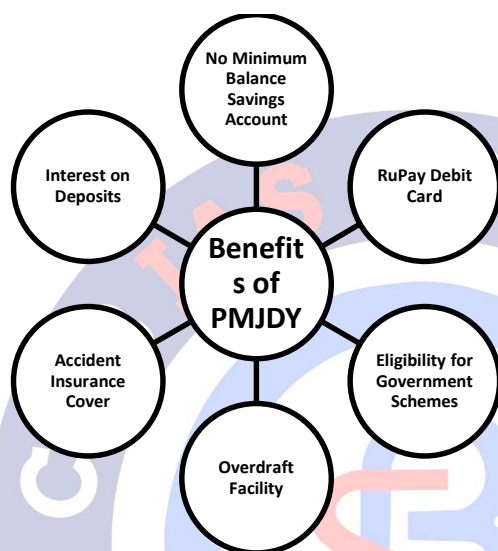
Q. Discuss the major achievements of the Pradhan Mantri Jan Dhan Yojana (PMJDY). Also, analyse the challenges that have emerged in the implementation of the scheme. (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

As the Pradhan Mantri Jan Dhan Yojana (PMJDY) marked its **10th anniversary**, Prime Minister Narendra Modi lauded the scheme's significant impact on financial inclusion in India. Launched on August 28, 2014, PMJDY aims to provide universal access to basic banking services, particularly for women, youth, and marginalized communities, contributing to the **government's broader agenda of financial inclusion**.



### Achievements of PMJDY

- **Massive Account Expansion:** As of August 2024, more than 53 crore accounts have been opened, making it the world's largest financial inclusion initiative (Source: Ministry of Finance). Guinness World Record for the most bank accounts opened in a single week, with over 1.8 crore accounts during its launch week.
- **Financial Inclusion:** According to the World Bank's Findex database, 78% of Indian adults had a bank account in 2021, up from 53% in 2014, indicating the scheme's success.
- **Direct Benefit Transfer (DBT):** PMJDY accounts are the backbone of the government's DBT system, leading to savings of Rs 3.48 lakh crore in schemes like MG-NREGS and PM-Kisan by March 2023 (Source: RBI's Report on Currency and Finance).
- **Deposit Growth:** Total deposits in PMJDY accounts reached Rs 2,31,235.97 crore by August 2024, reflecting increased trust in the banking system.
- **Banking Infrastructure Expansion:** The number of bank branches increased by 46% from 2013 to 2023, and ATMs grew by 30% from 2014 to 2024 (Source: Government data).
- **Gender Inclusion:** Over 29.56 crore accounts (55.6%) are held by women, highlighting the scheme's role in empowering women (Source: Ministry of Finance).

- **Digital Payment Revolution:** UPI transactions grew from 920 million in FY 2018 to 131.2 billion in FY 2024, with a significant rise in RuPay card transactions (Source: NPCI Annual Report).

### Challenges of PMJDY

- **Connectivity and Infrastructure Issues:** Inadequate physical and digital connectivity in rural areas hampers access to banking services.
- **Financial Literacy Deficit:** Many beneficiaries are unaware of the benefits like overdraft facilities and insurance, leading to underutilization.
- **Low Usage and Dormant Accounts:** Approximately 14% of accounts were dormant as of August 2024, particularly in rural areas.
- **Gender Disparity:** Women's actual usage rate is lower than men due to social norms, contributing to a gender gap.
- **Fraudulent Activities:** Concerns about misuse of accounts for money laundering, especially post-demonetization.
- **Geographic and Social Exclusion:** Certain regions face geographic challenges, limiting the scheme's effectiveness.
- **Account Duplication Issues:** The creation of multiple accounts under various schemes complicates accurate tracking of beneficiaries.

### Way Forward

- **Strengthening Infrastructure and Connectivity:** Expand bank branches, ATMs, and use Business Correspondents (BCs) to reach underserved regions.
- **Enhancing Financial Literacy:** Implement targeted educational programs in rural areas.
- **Addressing Dormant Accounts:** Introduce incentives for regular transactions and link accounts to services like MNREGA.
- **Mitigating Gender Disparity:** Encourage independent account use through women's self-help groups.
- **Preventing Fraud:** Use AI-based analytics for monitoring suspicious activities.
- **Addressing Exclusion:** Deploy mobile banking units and satellite connectivity in remote areas.
- **Improving Data Management:** Streamline processes to avoid account duplication.

The Pradhan Mantri Jan Dhan Yojana (PMJDY) has significantly advanced financial inclusion in India, expanding banking access and empowering marginalized communities. To sustain progress, it is crucial to address challenges like connectivity, financial literacy, and account dormancy. Strengthening infrastructure, enhancing financial literacy, and ensuring inclusivity will help PMJDY remain a key driver of **inclusive development and economic empowerment**.

## 22. MANGROVES

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Environment & Ecology > Mangroves

#### REFERENCE NEWS:

- The recently released "The State of the World's Mangroves 2024" report by the Global Mangrove Alliance (GMA) highlights critical issues and the current status of mangrove forests globally.

#### KEY HIGHLIGHTS OF THE REPORT:

- **Southeast Asia** dominates global mangrove coverage with 49,500 sq km, accounting for **33.6% of the world's total**. **Indonesia** alone holds **21%** of global mangroves.
- South Asia (in which **India** is located) has 9,749 sq km, making up **6.6% of the global mangrove forests**.
- The report summarizes that a total area of **4,083 sq km of mangroves** has been lost since **1996**, combining the effects of both human activities and natural environmental changes.
- Also, the report states that between **2000 and 2020, 43% of mangrove losses** were due to **conversion to aquaculture, oil palm plantations, and rice cultivation**.

#### WHAT ARE MANGROVES?

- Mangroves are **salt tolerant plant communities found in tropical and sub-tropical intertidal regions** of the world.
- Such areas are characterised by **high rainfall** (between 1000 mm to 3000 mm) and **temperature** (between 26-35°C). They occur worldwide in the **tropics and subtropics**, mainly between latitudes 25° N and 25° S.
- Mangroves are restricted mainly to the tropical areas as they **cannot tolerate the extreme cold events** typical of the temperate zone.



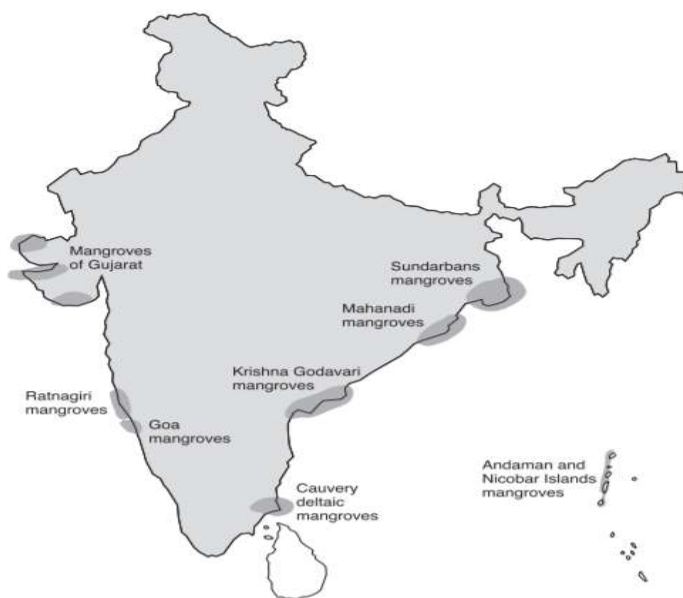
### FEATURES OF MANGROVES:

Mangroves adapt to challenging environments like waterlogged and anoxic soils through distinct features:

- **Halophytes:** They filter up to 90% of salt from seawater and can excrete excess salt through leaf glands.
- **Water Retention:** Mangroves store water in succulent leaves, with a waxy coating to reduce evaporation.
- **Pneumatophores:** Pencil-like roots act as snorkels for air intake, aiding survival during tidal floods.
- **Prop Roots:** Dense aerial roots provide stability against waves and tides.
- **Lenticellated Bark:** Oxygen enters through pores in the bark and roots, suitable for low-oxygen conditions.
- **Viviparous:** Seeds germinate while still on the tree, ready to root upon falling

### MANGROVES IN INDIA:

- According to the India state of forest report, 2021, the mangrove cover in India is 4,992 sq km, which is 0.15% of the country's total geographical area.
- West Bengal leads with 2,114 sq km, followed by Gujarat with 1,177 sq km, which includes significant areas in the Gulf of Kutch and Gulf of Khambhat.

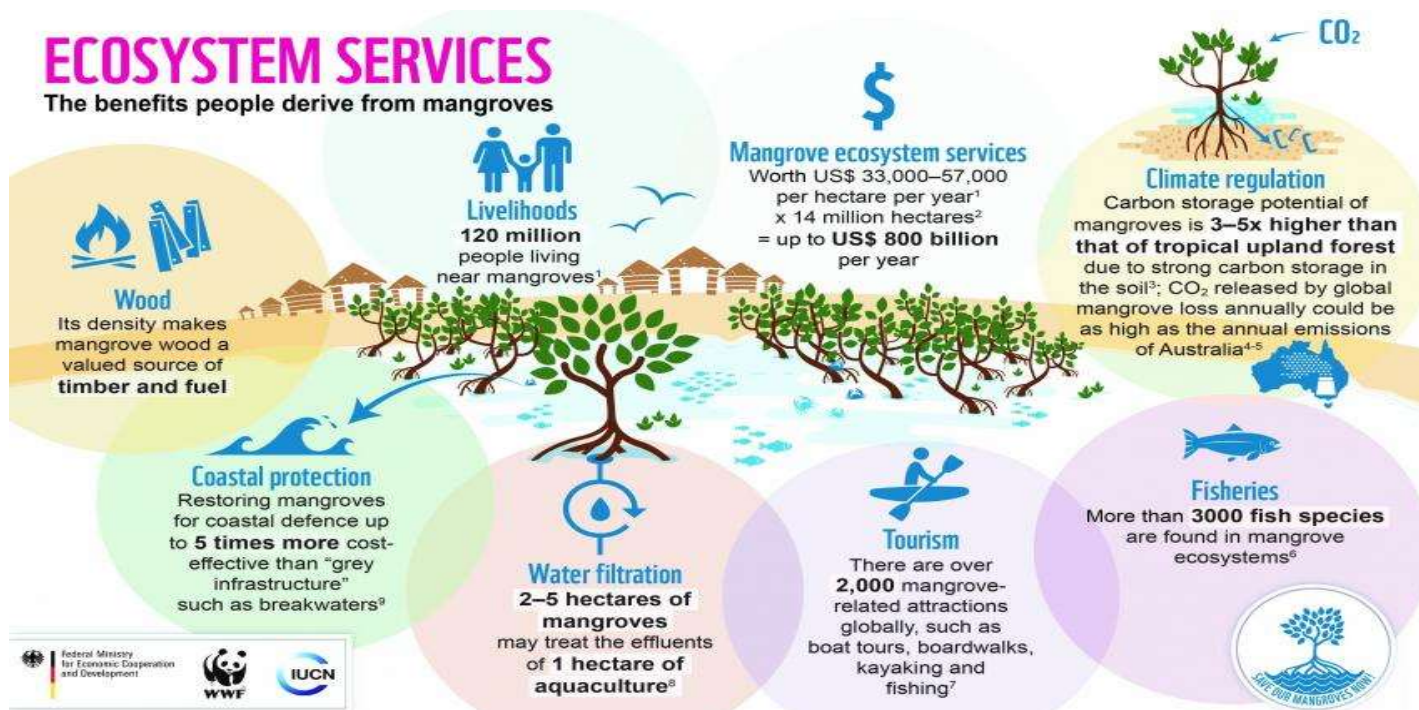


### SIGNIFICANCE OF MANGROVES:

- **Ecosystem services:**
  - **Abode of biodiversity:** Mangrove forests make up one of the most productive and biologically diverse ecosystems on the planet. They are home to an array of species, making them **an important biodiversity hotspot**.
  - **Nursery for species:** Mangroves serve as valuable **nursery areas for fish and invertebrates**. These habitats provide a rich source of food while also offering refuge from predation.
  - **Biological barrier:** The ability to retain sediments flowing from upstream prevents contamination of downstream waterways and protects sensitive habitat like **coral reefs and seagrass beds** below.
  - **Water filtration:** With their **dense network of roots** and surrounding vegetation, mangroves filter and trap sediments, heavy metals, and other pollutants, thereby maintaining water quality.
- **Economic significance:**
  - **Fisheries:** Mangrove forests are home to a large variety of fish, crab, shrimp, and mollusk species. This form an essential source of food and income for coastal communities around the world.
  - **Timber and plant products:** Mangrove wood is **resistant to rot and insects**, making it for construction and fuel. Mangroves also provide **minor forest products such as honey and resin**.
  - **Tourism:** Often located near to coral reefs and sandy beaches, the forests provide a rich environment for tourist activities like **recreational tours, snorkelling and birdwatching**.
- **Shoreline stabilisation:**
  - The dense root systems of mangrove forests trap sediments flowing down rivers and off the land. This helps **stabilizes the coastline and prevents erosion from waves and storms**.
- **Natural barrier:**
  - As risks from climate change brings about extreme weather events, mangrove forests can help lessen devastation in coastal areas.
  - For instance, a mangrove forest could reduce the effects of a **Category 5 storm** to the intensity and effects of a **Category 3 storm**.



- **Carbon sinks:**
  - Mangroves absorb up to **four times more carbon dioxide** per area than terrestrial forests, making them highly effective at mitigating climate change. Protecting and expanding these forests enhances their carbon scrubbing capabilities. For instance, the **State of the World's Mangroves 2024 report** said that mangroves store an average of **394 tonnes of carbon per hectare**.



Sources: ① UNEP, 2014 • ② Giri et al., 2011 • ③ In the Indo-Pacific region: Donato et al., 2011 • ④ Up to 450 million t CO<sub>2</sub>: Pendleton et al., 2012 • ⑤ In 2015: EDGARv4.3.2., 2018 • ⑥ Sheaves, 2017 • ⑦ Spalding et al., 2016 • ⑧ Primavera et al., 2007 • ⑨ In Vietnam: Narayan et al., 2016.

### EXISTING PROTECTION MEASURES:

#### **NATIONAL:**

- **Constitutional Provisions:** Article 48A obligates the state to protect and improve the environment.
- **National Committee on Mangroves, Wetlands, and Coral Reefs:** Formed in 1993 to advise on policies and programs for marine conservation.
- **MISHTI Programme:** Launched in June 2023 to expand mangrove cover by planting 540 square kilometers across 11 states and two Union territories.
- **Centrally Sponsored Scheme for Conservation and Management of Mangroves:** Managed by the Ministry of Environment, it provides funds to states for mangrove conservation plans.
- **Marine Protected Areas (MPAs) under WPA:** Mangroves are designated as National Parks or Wildlife Sanctuaries under the Wildlife (Protection) Act, 1972.

- **Environment (Protection) Act, 1986 (EPA):** Empowers the government to regulate environmental pollution, indirectly protecting mangroves.
- **Coastal Regulation Zone (CRZ) Notification:** Prohibits development and waste disposal in coastal ecosystems.
- **State Government Efforts:** Various state laws and initiatives protect mangroves, like Maharashtra's Mangrove and Marine Biodiversity Conservation Foundation.
- **Magical Mangroves Campaign:** A national campaign by Godrej & Boyce and WWF India to promote mangrove conservation through various activities.

#### INTERNATIONAL:

- **Ramsar Convention:** An international treaty focusing on the conservation and sustainable use of wetlands.
- **Agenda 21 of the Rio Declaration:** Advocates for the protection and sustainable use of oceans and coastal areas.
- **Red List of Ecosystems (RLE) Framework of IUCN:** Aims to assess the global status of ecosystems for conservation and management decisions.

#### THREATS TO MANGROVES:

- **Change in Land-use:**
  - The area of mangrove forest continues to shrink due to activities such as shrimp aquaculture and salt farms, which involve clearing, dredging, and diking. The removal of mangroves allows strong waves to erode vital sediments, impeding seedling growth and nutrient retention.
  - For instance, according to the "**State of the World's Mangroves, 2024**" report, **shrimp aquaculture** has severely impacted mangroves since the 1980s, causing significant losses in areas like **Kerala and Eastern India**, as well as countries like **Indonesia and Brazil**.
- **Irresponsible tourism:**
  - Unregulated tourism has taken its toll on the environmental integrity of the mangroves. **Creation of walkways and tourist amenities and littering** is changing the physical characteristics of mangrove forests.
- **Pollution:**
  - **Municipal wastes and agricultural runoff** containing pesticides, antibiotics and other pollutants are making its way into water supplies. Another major threat is from **thermal pollution and oil spills**, as they smother mangrove roots and suffocate the trees.

- **River diversion:**
  - Dams and irrigation reduce the amount of water reaching mangrove forests, **changing the salinity level of water** in the forest.
  - For example, the **construction of Farakka Barrage** in 1975 has altered fresh water flow around the delta, thereby altering the ecology of Sundarbans.
- **Lumber industry:**
  - **Chopping down mangroves for charcoal and timber** is an important cottage industry. While harvesting has taken place for centuries, in some parts of the world it is no longer sustainable, threatening the future of the forests.
- **Invasive species:**
  - Plantation of fast-growing non-native mangrove species has been used as a tool for mangrove restoration in several countries. However, **the fast-growth ability has made some species invasive** and gradually replacing co-occurring native mangroves. For example, the **red mangrove (Rhizophora mangle), native to South Florida**, was introduced in Hawai'i to stabilize shorelines but turned invasive, altering local ecosystems and biodiversity.
- **Climate change:**
  - Mangroves need freshwater to maintain the estuarine conditions they thrive in. But as sea-levels rise, the swamps become more saline, threatening some tree species go extinct.
  - According to the **"State of the World's Mangroves, 2024"** report, mangroves in the **Lakshadweep archipelago and along the Tamil Nadu coast** face critical endangerment mainly due to rising sea levels influenced by global warming.
- **Natural threats:**
  - Powerful storms and hurricanes may also severely damage mangrove habitats. Winds, waves, and flooding may be destructive enough to clear entire mangrove islands.
- **Shortcomings in legislations and enforcement:**
  - Forest law enforcement in India appears weak, and penalties devised by various legal instruments such as the Forest Act 1927 are ineffective. Also, since the CRZ is only a notification, it could not be enforced strictly.

#### WAY FORWARD:

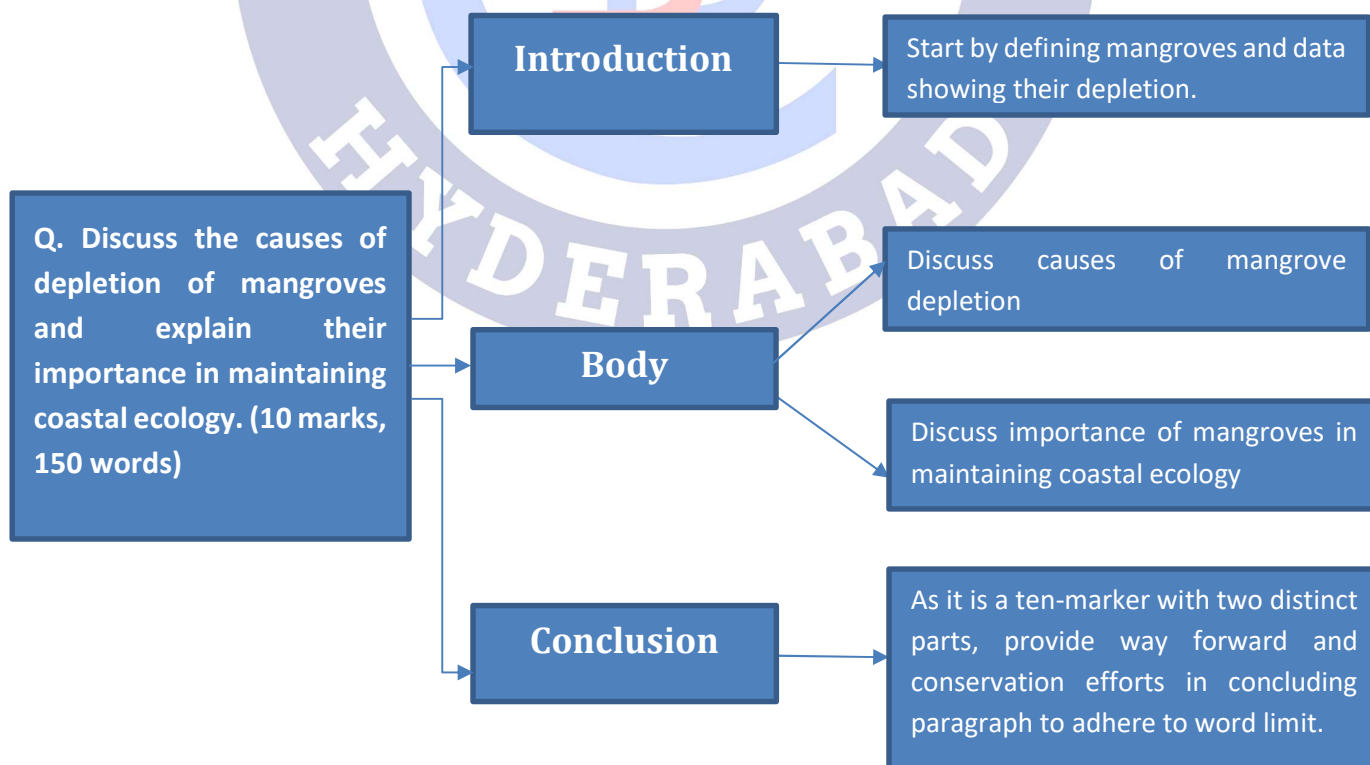
- **Scientific Management:** Implement restoration and rehabilitation practices for degraded mangrove areas, especially in climate-vulnerable coastal zones.
- **Socio-economic Studies:** Conduct studies to recognize and protect the traditional rights of mangrove-dependent coastal communities.

- **Mapping and Planning:** Conduct floristic surveys along coasts to create a biodiversity atlas and identify areas for mangrove management action plans.
- **Encourage People's Participation:** Make local community involvement mandatory in mangrove conservation on both public and private lands.
- **Encourage Private Players:** Motivate coastal industries and private landowners to participate in mangrove conservation, offering incentives for sustainable management.
- **Promote Awareness:** Increase public awareness about mangrove importance through exhibitions, seminars, and nature camps, and by establishing mangrove parks.
- **Ensure Minimum Flow:** Enforce norms for hydel projects to release minimum water downstream to support mangrove ecosystems.
- **Research Support:** Foster research and international collaboration to address mangrove management issues and develop scientific conservation strategies.
- **Alternative Livelihood:** Promote alternative income sources like dairy farming, beekeeping, ecotourism, and agro-forestry in mangrove-dependent communities.

## PRACTICE QUESTION

Q. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology. (10 marks, 150 words, GS 1, UPSC CSE 2019)

## APPROACH



## MODEL ANSWER

Mangroves are salt-tolerant trees and shrubs that thrive in the intertidal zones of tropical and subtropical coastlines. They provide crucial ecological and economic benefits, but according to the '**State of the World's Mangroves 2024**' report by the Global Mangrove Alliance (GMA), these ecosystems have experienced significant challenges, with a **total area loss of 4,083 sq km since 1996** attributed to human activities and environmental changes.

### Causes of Mangrove Depletion

- 1. Change in Land Use:** Activities such as shrimp aquaculture and salt farming involve extensive clearing, dredging, and diking, leading to the loss of mangrove forests. The **State of the World's Mangroves 2024** report points out that since the 1980s, such practices have severely impacted mangroves, particularly in regions like **Kerala and Eastern India**, as well as internationally in **Indonesia and Brazil**.
- 2. Pollution:** The influx of municipal wastes and agricultural runoff, which often contains harmful substances like pesticides and antibiotics, deteriorates water quality, affecting mangrove health. Additionally, thermal pollution and oil spills pose severe risks by smothering mangrove roots and suffocating the trees.
- 3. River Diversion:** Infrastructure developments like dams and irrigation projects alter the natural water flow to mangroves, affecting their salinity levels. For instance, the **construction of the Farakka Barrage** in 1975 significantly altered the freshwater flow around the Sundarbans' delta, impacting its mangrove ecosystems.
- 4. Climate Change:** Rising sea levels increase the salinity of mangrove swamps, endangering specific tree species. The **State of the World's Mangroves 2024** report also notes that mangroves in the **Lakshadweep archipelago** and along the **Tamil Nadu coast** are critically endangered due to these changes.
- 5. Natural Threats:** Severe weather events like **storms and hurricanes** can destroy large areas of mangrove forests through strong winds and flooding, as seen in various regions globally.

### Importance of Mangroves in Maintaining Coastal Ecology

- 1. Biodiversity Hotspots:** Mangroves act as vital habitats for a wide range of species, significantly enhancing coastal biodiversity. They are crucial **nurseries for various fish and invertebrates**, supporting the ecological balance and biodiversity of coastal regions.

2. **Natural Protective Barriers:** Mangroves help stabilize shorelines and reduce erosion with their dense root systems. They protect coastal areas from the impacts of severe weather, such as storms and hurricanes. For example, a mangrove forest can **reduce the impact of a Category 5 storm to that of a Category 3**, significantly lessening devastation in coastal communities.
3. **Carbon Sequestration:** Mangroves are powerful carbon sinks, absorbing up to four times more CO<sub>2</sub> per area than terrestrial forests. According to **State of the World's Mangroves 2024** report they store an average of **394 tonnes of carbon per hectare**, playing a pivotal role in mitigating climate change and maintaining coastal air quality.
4. **Economic Stabilization:** Mangroves bolster local economies by supporting fisheries, which are essential for the livelihood of coastal communities. Additionally, the durability of mangrove wood, resistant to rot and pests, makes it a valuable resource for construction and fuel, thus providing **sustainable economic benefits and maintaining the ecological balance** of coastal areas.
5. **Ecotourism and Environmental Education:** Mangroves enhance coastal ecology by attracting ecotourism, which offers educational and recreational opportunities such as birdwatching and nature tours. These activities not only foster a deeper understanding and appreciation of mangrove ecosystems among tourists and locals but also drive economic growth through sustainable tourism, further contributing to the health and vitality of coastal regions.

Safeguarding mangroves requires both national and international collaboration. Nationally, initiatives like the **MISHTI Programme, Centrally Sponsored Scheme for Conservation and Management of Mangroves, CRZ rules** etc. are crucial for protection. Internationally, frameworks like the **Ramsar Convention** help preserve these ecosystems globally. To further these efforts, enhancing **scientific management, promoting community involvement**, and increasing research are essential. Together, these actions ensure mangroves continue to deliver vital ecological, economic, and protective benefits.

## 23. WETLAND ECOSYSTEM OF INDIA

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 >Environment and Ecology > Wetlands

#### REFERENCE NEWS:

Union Environment Minister Bhupender Yadav announced three new Ramsar sites in Tamil Nadu and Madhya Pradesh, taking the total of such sites in India to **85**. The new additions are the **Nanjarayan Bird Sanctuary** and the **Kazhuveli Bird Sanctuary** in Tamil Nadu, and the **Tawa Reservoir** in Madhya Pradesh. The achievement reflects the emphasis has laid on establishing harmony with nature, calling our wetlands **Amrit Dharohars**, and working relentlessly for their conservation.

#### WETLAND ECOSYSTEM IN INDIA:

According to the **Ramsar convention**, wetlands are defined as “areas of marsh, fen, peatland or water, whether **natural or artificial, permanent or temporary**, with water that is static or flowing, **fresh, brackish or salt**, including areas of marine water the depth of which at low tide does not exceed six metres”. This definition includes all lakes, rivers, underground aquifers, swamps, marshes, and other major water bodies.

- According to the US Environmental Protection Agency, **wetlands are among the most productive ecosystems in the world, comparable to rainforests and coral reefs.**
- Globally, wetlands **cover 4% of the geographical area of the world**
- In India, according to the National Wetland Inventory and Assessment compiled by the Indian Space Research Organisation (ISRO), India's wetlands cover approximately **4.86% of the country's total geographic area**, or 15.98 million hectares including rivers but exclude paddy fields.
- Of the 1,52,600 sq km, **inland-natural wetlands account for 43.4%** and **coastal-natural wetlands 24.3%**.
- Rivers/streams occupy 52,600 sq km, reservoirs/barrages 24,800 sq km, inter-tidal mudflats 24,100 sq km, tanks/ponds 13,100 sq km and lake/ponds 7300 sq km.
- The extent of wetlands in India varies by state, with **Gujarat** having the highest percentage at 17.56% and **Mizoram** having the lowest at 0.66%. Lakshadweep has the highest percentage of wetlands among union territories at about 96%, while Delhi has the lowest at 0.93%.

## BENEFITS OF WETLAND ECOSYSTEM IN INDIA:

### **Biodiversity Conservation:**

- **Habitat for Wildlife:** Wetlands provide breeding, nesting, and feeding grounds for a wide variety of species, including birds, fish, amphibians, and invertebrates. They are essential for the conservation of many endangered species
  - The Keoladeo National Park (Bharatpur), a UNESCO World Heritage Site, serves as a critical habitat for over 370 species of birds, including migratory species like the Siberian crane.
- **Support for Aquatic Life:** Wetlands are crucial for maintaining aquatic biodiversity, including commercially important fish species. They also support the life cycles of many amphibians and reptiles.
  - The Chilika Lake in Odisha, Asia's largest brackish water lagoon, is a vital habitat for the endangered Irrawaddy dolphin and other fishes and amphibians.

### **Water Regulation and Purification**

- **Flood Control:** They act as natural buffers, protecting coastal and inland areas from extreme weather events.
  - The Sundarbans mangrove wetlands along the coast of West Bengal and Bangladesh act as a natural barrier against cyclones and storm surges, protecting inland areas from flooding.
- **Groundwater Recharge:** Wetlands help in replenishing groundwater reserves by allowing water to percolate through the soil.
  - The wetlands in the Doab region (between the Ganga and Yamuna rivers) play a significant role in recharging groundwater aquifers, which are crucial for agriculture in the region.
- **Water Purification:** Wetlands act as natural filters, trapping sediments, nutrients, and pollutants from surface water.
  - The Loktak Lake in Manipur, with its unique phumdis (floating islands), naturally filters pollutants from the water, maintaining water quality and supporting local communities.

### **Climate Regulation**

- **Carbon Sequestration:** Wetlands, particularly mangroves and peatlands, store large amounts of carbon in their vegetation and soils, helping to mitigate climate change by reducing greenhouse gas concentrations in the atmosphere.



- The Sundarbans mangroves are one of the largest carbon sinks in South Asia, sequestering significant amounts of carbon dioxide from the atmosphere.
- **Microclimate Regulation:** The Vembanad-Kol Wetland in Kerala influences the local climate, moderating temperatures and providing a stable environment for agriculture, particularly rice cultivation.

### Livelihood Support

- **Fisheries and Aquaculture:** Wetlands support fisheries and aquaculture, which are vital sources of food and income for millions of people in India.
  - The Chilika Lake supports a thriving fishing industry, providing livelihoods for over 150,000 fisherfolk.
- **Agriculture:** Wetlands provide water and fertile soil for agriculture, supporting food production in many parts of India. They are also essential for traditional farming practices that are adapted to wetland environments.
  - The Kumarakom Wetlands in Kerala are integral to the region's paddy cultivation. The traditional practice of **Pokkali farming**, where rice is grown in wetland conditions, is an example of sustainable agriculture in wetland ecosystems.
- **Tourism and Recreation:** Wetlands attract tourists, contributing to local economies through eco-tourism and recreational activities. They provide opportunities for bird watching, boating, and cultural experiences.
  - The Rann of Kutch in Gujarat, home to the Rann Utsav, attracts tourists for its unique landscape and rich biodiversity, including the famous flamingo colonies.

### Cultural and Spiritual Significance

- **Cultural Heritage:** The Pushkar Lake in Rajasthan is not only a significant wetland but also a site of great religious and cultural importance, attracting thousands of pilgrims every year.
- **Traditional Knowledge and Practices:** Wetlands support traditional knowledge systems and sustainable practices that have been developed and maintained by indigenous communities over generations.
  - The Apatanis of Arunachal Pradesh practice sustainable wetland-based agriculture, integrating rice-fish farming in the Ziro Valley wetlands, a practice that is deeply rooted in their cultural heritage.

## CHALLENGES FACED BY WETLAND ECOSYSTEM IN INDIA:

### Habitat Degradation and Loss

- **Encroachment and Land Use Change:** The East Kolkata Wetlands, a Ramsar site, have faced significant encroachment due to rapid urbanization. Large portions of the wetlands have been converted for housing, industrial activities, and infrastructure development.
- **Agricultural Expansion:** The Vembanad-Kol Wetland in Kerala, one of the largest wetlands in India, has been affected by agricultural expansion, particularly for paddy cultivation. This has led to the draining of wetlands and alteration of natural water flow.
- **Infrastructure Development:** The Loktak Lake in Manipur has been impacted by the construction of the Ithai Barrage, which altered the natural hydrology of the lake, leading to changes in water levels and disruption of the lake's ecosystem.

### Pollution and Contamination

- **Industrial Pollution:** The Kolkata Wetlands receive untreated industrial effluents from the surrounding urban areas, leading to contamination of water and soil. Heavy metals and toxic chemicals have adversely affected the health of the ecosystem and the species that depend on it.
- **Agricultural Runoff:** The Harike Wetland in Punjab has been impacted by agricultural runoff containing pesticides and fertilizers, leading to eutrophication and the proliferation of invasive species like water hyacinth.
- **Domestic Sewage:** The Dal Lake in Jammu and Kashmir faces severe pollution from domestic sewage, leading to the degradation of water quality and the growth of weeds like Azolla, which choke the lake and reduce its aesthetic and ecological value.

### Invasive Species

- **Spread of Invasive Plants:** The Chilika Lake in Odisha has been invaded by the aquatic weed *Salvinia molesta*, which forms dense mats on the water surface, reducing sunlight penetration and oxygen levels, thereby affecting fish populations and other aquatic life.
- **Introduction of Non-Native Fauna:** The introduction of African catfish (*Clarias gariepinus*) in various wetlands across India, such as in the Vembanad Lake, has led to the decline of native fish species due to competition and predation.

### Climate Change

- **Altered Hydrological Cycles:** The Sundarbans mangroves are experiencing changes in freshwater flow due to altered monsoon patterns and sea-level rise, which threaten the survival of the mangrove ecosystem and the species that depend on it.

- **Sea Level Rise:** Coastal wetlands like the Sundarbans and Mahanadi Delta are at risk from rising sea levels, which lead to increased salinity, submergence of land, and loss of mangrove forests.
- **Increased Frequency of Extreme Weather Events:** The Chilika Lake has been affected by more frequent cyclones and storm surges, which disrupt the lake's ecosystem and impact the livelihoods of local communities dependent on fishing.

### Overexploitation of Resources

- **Unsustainable Fishing Practices:** Overfishing in the Chilika Lake has led to the decline of fish populations, affecting the ecological balance of the lake and the livelihoods of fisherfolk.
- **Extraction of Water:** Excessive water extraction from the Vembanad Lake for irrigation and domestic use has lowered water levels, affecting the lake's ecological health and its ability to support biodiversity.
- **Harvesting of Vegetation:** The harvesting of reed beds in the Kumarakom Wetlands for thatching and **tourism pressure** has led to habitat degradation, affecting bird species that rely on these reeds for nesting.

### WAY FORWARD TO WETLAND CONSERVATION:

- **Strengthening Policy and Legal Frameworks:** India's **Wetlands (Conservation and Management) Rules, 2017** provide a legal framework for the protection of wetlands. However, enforcement needs to be strengthened, and the identification and notification of wetlands should be expedited.
- **Integration with Land-Use Planning:** The **United States** has integrated wetland conservation into its land-use planning through the **Clean Water Act** and **National Wetlands Inventory**. These tools ensure that wetlands are considered in development projects.
- **Incentivizing Conservation through Policy:** In **Australia**, the **Environmental Stewardship Program** provides financial incentives to private landowners for conserving wetlands and other ecosystems on their properties through Payments for ecosystem services etc.
- **Community Involvement:** The **Koli fishing community** in the **Vembanad-Kol Wetland** of Kerala plays an active role in managing fishery resources, demonstrating the importance of community participation in wetland conservation. In **Bangladesh**, the **Community-Based Fisheries Management (CBFM) Program** has empowered local communities to manage wetlands sustainably, leading to improved fish stocks and biodiversity.
- **Scientific Research and Monitoring through Wetland Mapping:** India's **National Wetland Inventory and Assessment** provides a database of wetlands. However, regular updates and detailed ecological assessments are needed. The **European Space Agency's (ESA)**

**GlobWetland Project** uses satellite data for wetland monitoring and management, providing real-time information on wetland health and trends.

- **Promoting Wetland Research and Innovation:** The **Everglades Restoration Plan** in the United States is a large-scale, science-based initiative to restore the Everglades wetlands. It integrates research on hydrology, ecology, and climate change impacts to guide restoration efforts.
- **Restoration of Wetlands:** **China** has implemented large-scale wetland restoration projects, such as the **Sanjiang Plain Wetland Project**, which has successfully restored wetlands by reintroducing native vegetation and improving water management.
- **Sustainable Utilization of Wetlands:** The **Danube River Basin** in Europe has implemented sustainable wetland management practices that balance conservation with the needs of agriculture, fisheries, and tourism.
- **Incorporating Climate Resilience in Wetland Management:** **Netherlands** has implemented the **Room for the River** project, which increases flood resilience by restoring natural floodplains and wetlands, thus integrating climate adaptation into wetland management.
- **Carbon Sequestration Initiatives:** The **Blue Carbon Initiative** focuses on conserving and restoring coastal wetlands such as mangroves and seagrasses for their role in carbon sequestration.

#### **Ramsar Convention (Convention on Wetlands):**

An intergovernmental treaty signed in 1971 in Ramsar, Iran. It encourages the protection and conservation of wetlands worldwide by designating them as such. The selection of Ramsar sites is based on various criteria defined under the convention. For example, "A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions." It also looks at the sites' capacity to support fishes and waterbirds.

Organisations like the International Union for Conservation of Nature, the World Wide Fund for Nature, and other environmental agencies are associated with the treaty. It also has 172 signatory countries. They are obligated to create wetland reserves and promote the wise use of wetland habitats. **India joined it in 1982**, initially designating the Chilika Lake in Orissa and Keoladeo National Park in Rajasthan. Other initiatives include:

#### **Global Level:**

- Montreux Record
- World Wetlands Day on 2<sup>nd</sup> February

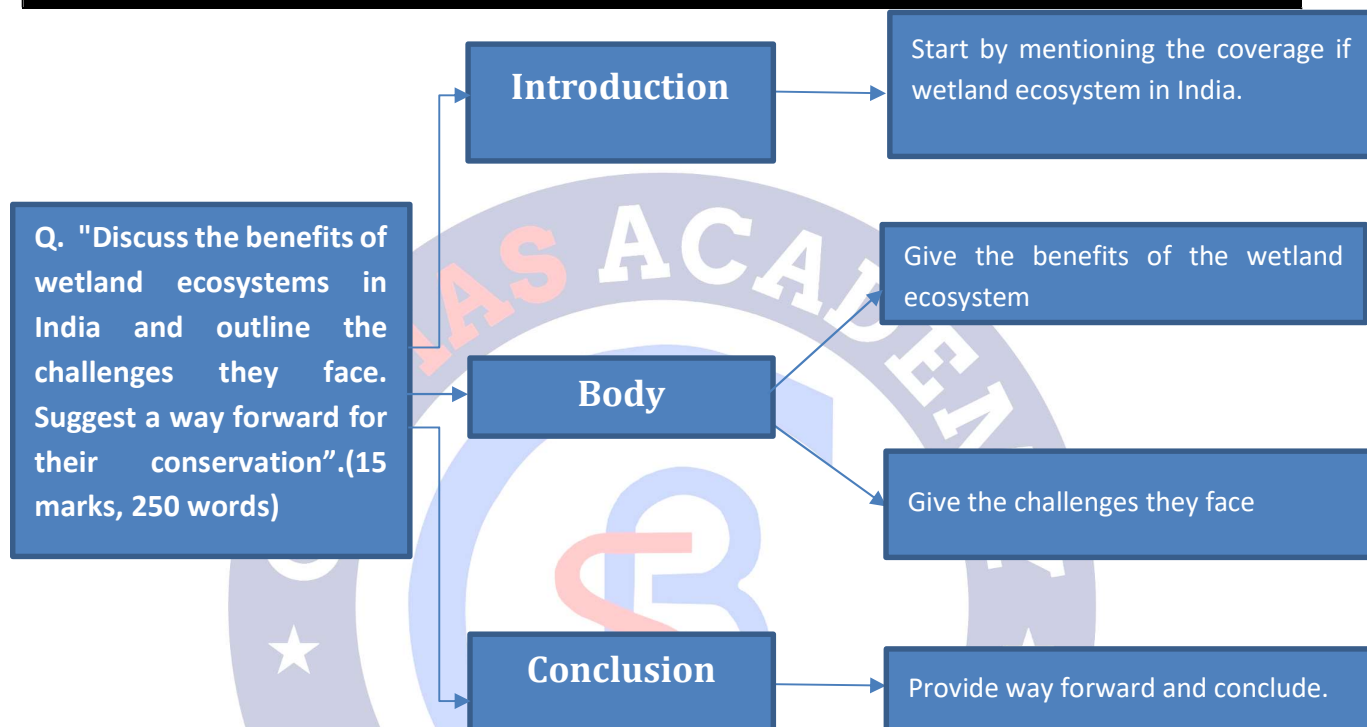
#### **National Level:**

- Wetlands(Conservation and Management) Rules,2017
- National Plan for Conservation of Aquatic Ecosystem
- Amrit Dharohar Capacity Building scheme
- National Wetland Conservation Programme.

## PRACTICE QUESTION

Q. "Discuss the benefits of wetland ecosystems in India and outline the challenges they face. Suggest a way forward for their conservation".(15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Wetlands are among the most productive ecosystems on Earth, playing a crucial role in biodiversity conservation, water regulation, climate moderation, and supporting livelihoods. India, with its diverse range of wetlands, from the Himalayan highlands to the coastal regions, holds approximately 4.86% of its geographical area under wetlands.

### BENEFITS OF WETLAND ECOSYSTEMS:

1. **Biodiversity Conservation:** Wetlands are critical habitats for a wide variety of species. For example, the Keoladeo National Park in Bharatpur is a UNESCO World Heritage Site and supports over 370 species of birds, including migratory species like the Siberian crane.
2. **Water Regulation and Purification:** Wetlands act as natural buffers, mitigating floods and recharging groundwater. For instance, the Sundarbans mangrove wetlands protect coastal regions from cyclones and storm surges. Wetlands like the Loktak Lake in Manipur naturally filter pollutants, maintaining water quality and supporting local communities.

3. **Climate Regulation:** Wetlands, especially mangroves and peatlands, sequester large amounts of carbon, aiding in climate change mitigation. The Sundarbans, for instance, are one of South Asia's largest carbon sinks. The Vembanad-Kol Wetland in Kerala helps regulate the local climate, which is vital for agriculture, particularly rice cultivation.
4. **Livelihood Support:** Wetlands support fisheries and agriculture, providing livelihoods for millions. The Chilika Lake supports over 150,000 fisherfolk, while the Kumarakom Wetlands in Kerala are integral to the region's paddy cultivation. Wetlands also promote eco-tourism, as seen in the Rann of Kutch, which attracts tourists for its unique biodiversity and cultural heritage.

#### **CHALLENGES FACED BY WETLAND ECOSYSTEMS:**

1. **Habitat Degradation and Loss:** Rapid urbanization and infrastructure development have led to significant encroachment. For example, the East Kolkata Wetlands have been degraded due to industrial activities. Agricultural expansion in the Vembanad-Kol Wetland has altered natural water flow, affecting the wetland's health.
2. **Pollution and Contamination:** Industrial pollution, agricultural runoff, and domestic sewage have severely affected wetlands like Harike in Punjab and Dal Lake in Jammu and Kashmir, leading to eutrophication and habitat degradation.
3. **Invasive Species:** Non-native species like *Salvinia molesta* in Chilika Lake and African catfish in various wetlands have disrupted the ecological balance, threatening native species.
4. **Climate Change:** Altered hydrological cycles and rising sea levels pose significant risks. The Sundarbans, for example, face increased salinity and land submergence, threatening both biodiversity and human settlements.

#### **WAY FORWARD:**

1. **Strengthening Policy and Legal Frameworks:** The Clean Water Act and National Wetlands Inventory in the USA integrate wetland conservation into land-use planning, which India can emulate.
2. **Community Involvement:** Bangladesh's Community-Based Fisheries Management (CBFM) Program has successfully involved local communities in sustainable wetland management.

3. **Scientific Research and Monitoring:** The European Space Agency's GlobWetland Project uses satellite data for real-time wetland monitoring, providing valuable insights for management.
4. **Restoration and Sustainable Utilization:** The Everglades Restoration Plan in the USA is a model of large-scale, science-based wetland restoration.

Wetlands are indispensable to India's environmental health, economy, and cultural heritage. Protecting them requires a multi-faceted approach involving policy reform, community participation, scientific research, and international cooperation.



## 24. E-COMMERCE SECTOR IN INDIA

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development

#### REFERENCE NEWS:

Union Commerce Minister Piyush Goyal voiced his concerns about the rapid expansion of e-commerce in India, calling it a “**matter of concern**” rather than a source of pride. While speaking at an event for the launch of a report on the net impact of e-commerce on **employment and consumer welfare**, Goyal emphasised the **potential social disruptions** that could arise if the sector's growth is not carefully managed.

Goyal acknowledged the role that e-commerce plays in the Indian economy but stressed the need for a more **organised approach** to its expansion. He questioned the impact of **predatory pricing strategies** employed by some e-commerce giants, such as Amazon, which he suggested could harm the broader economy rather than contribute to it.

#### PREVALENCE OF THE E-COMMERCE SECTOR IN INDIA

##### Market Size and Growth:

- The Indian e-commerce market was valued at approximately \$84 billion in 2021 and is projected to reach \$188 billion by 2025, reflecting a compound annual growth rate (CAGR) of around 21%.
- The Indian e-commerce industry is projected to reach **US\$ 300 billion by 2030**, experiencing significant growth.
- India is currently the **8th largest market** for e-commerce, and it is expected to become the **3rd largest globally by 2030**.

##### Consumer Base:

- The number of internet connections in India significantly increased to 895 million, driven by the ‘Digital India’ program as of June 2023.
- The smartphone base has also increased significantly and is expected to reach 1.1 billion by 2025.
- India’s digital sector is expected to reach US\$ 1 trillion by 2030.



- **Youth-Driven Market:** A large, young population, with **increasing disposable income**, is a key driver of e-commerce growth in India. Millennials and Gen Z are the primary consumers, particularly in urban and semi-urban areas.

#### Diverse Product Categories:

- **Electronics and Apparel:** These are the most popular categories in Indian e-commerce, accounting for the largest share of online sales.
- **Grocery:** The online grocery market has seen substantial growth, especially during and after the COVID-19 pandemic. Platforms like BigBasket, Grofers (now Blinkit), and JioMart have gained prominence.
- **Healthcare and Pharmaceuticals:** The online pharmacy segment has grown with companies like 1mg, Netmeds, and PharmEasy becoming household names, particularly during the pandemic.

#### Rural Penetration:

- **Expanding Reach:** E-commerce is no longer confined to urban areas. Companies are increasingly targeting rural markets, where digital literacy and smartphone penetration are rising.
- Amazon and Flipkart have launched initiatives to onboard local sellers from rural areas, expanding their product offerings and reach.
- Out of the total internet connections, ~55% of connections were in urban areas, of which 97% of connections were wireless.

#### Government Initiatives:

- **Digital India Campaign:** Launched in 2015, this initiative has played a crucial role in promoting internet usage across the country, indirectly boosting e-commerce.
- **E-Marketplaces for MSMEs:** The Government of India has launched various e-marketplaces to help Micro, Small, and Medium Enterprises (MSMEs) access wider markets, enhancing their participation in the digital economy.
- Government of India has announced various initiatives Make in India, Start-up India, Skill India, and Innovation Fund. The timely and effective implementation of such programs will likely support the growth of E-commerce in the country.
- **Common Services Centre(CSC) and Open Network for Digital Commerce(ONDC)** partnered to expand e-commerce reach to rural areas in India. This collaboration integrates CSC's e-Grameen app with the ONDC network, providing citizens across rural India access to a vast e-commerce network, fostering entrepreneurship opportunities and driving the vision of Gram Swaraj.

- Under the Digital India movement, the Government launched various initiatives like Umang, Start-up India Portal, Bharat Interface for Money (BHIM) etc. to boost digitisation.
- In order to increase the participation of foreign players in E-commerce, the Indian Government hiked the limit of **FDI in the E-commerce marketplace model** to up to **100%** (in B2B models).
- Heavy investment made by the Government in rolling out a fibre network for 5G will help boost E-commerce in India.
- In the recent budget Government withdrew 2% equalisation levy on e commerce.

### **Innovations and Technology:**

- **AI and Personalization:** E-commerce platforms in India are increasingly using artificial intelligence (AI) and machine learning to offer personalized shopping experiences, recommend products, and improve customer service.
- **Payment Solutions:** The rise of digital payment platforms like Paytm, PhonePe, and UPI (Unified Payments Interface) has facilitated smooth transactions and boosted consumer confidence in online shopping.

### **CHALLENGES OF E COMMERCE SECTOR IN INDIA:**

#### **Logistical and Infrastructure Issues:**

- **Last-Mile Delivery:** Despite Amazon's extensive logistics network, delivering to India's vast rural regions remains difficult, leading to delayed deliveries and higher costs.
- **High Return Rates:** This not only increases logistics costs but also complicates inventory management. Flipkart faces return rates as high as 30% during major sales events, which strains their supply chain.

#### **Regulatory Challenges:**

- **Complex Taxation:** The implementation of Goods and Services Tax (GST) has simplified some aspects of taxation, but compliance remains complex, especially for smaller e-commerce businesses. Different states imposing additional regulations can create bottlenecks. Small sellers on platforms like Meesho and Snapdeal often struggle with the paperwork and compliance requirements under GST.
- **Data Protection and Privacy Laws:** The draft Personal Data Protection Bill, 2019, and subsequent regulations have raised concerns about data localization and the costs associated with compliance. E-commerce companies like Amazon and Flipkart have had to invest heavily in data centers in India to comply with potential regulations.

#### **Payment and Trust Issues:**

- Cash on Delivery (CoD) Dependency: A large proportion of online transactions in India are still conducted via Cash on Delivery (CoD). Snapdeal faced challenges with CoD during its early growth phase, leading to losses due to returns and fraud.
- Digital Payment Fraud: Although digital payments have grown, they have also brought an increase in cyber frauds and scams, making consumers wary. Platforms like Paytm and PhonePe have had to continuously upgrade their security measures to protect users from phishing attacks and fraudulent transactions.

#### Consumer Behaviour and Trust:

- Low Trust in Online Shopping: This is particularly true for high-value items like electronics and jewellery. Platforms like Tata Cliq, which deal with premium brands, often face challenges convincing first-time buyers.
- May lead to “social disruption” since it would adversely impact an estimated 100 million small retailers across who are backbone of Indian economy.

#### Competition and Market Saturation:

- Intense Competition: The e-commerce market in India is highly competitive, with major players like Amazon, Flipkart, and new entrants like JioMart battling for market share. This competition leads to predatory pricing and heavy discounts. Smaller players, such as Snapdeal, have struggled to maintain their market position against these giants.
- The figure shows major e-commerce concentrated states.



#### Supply Chain Management:

- Inventory Management: Overstocking and understocking issues are common, leading to inefficiencies. Flipkart, for example, faces challenges in predicting demand during its "Big Billion Days" sales, sometimes resulting in stockouts or excess inventory.
- Vendor and Seller Issues: Ensuring a reliable and consistent supply chain can be difficult, especially when working with small-scale vendors who may lack the capacity or technology to meet e-commerce demands. Amazon has faced issues with local vendors failing to meet quality and delivery standards, impacting customer satisfaction.

### Technological Challenges:

- Integration of Technology: Traditional businesses joining platforms like Shopify or WooCommerce often face difficulties in adapting to new technology, leading to operational challenges.
- Cybersecurity Risks: With the rise in digital transactions, e-commerce platforms are increasingly targets for cyberattacks. Ensuring robust cybersecurity measures is costly and complex. Platforms like Zomato have faced data breaches, which have impacted customer trust and necessitated significant investment in cybersecurity.

### Consumer Protection and Counterfeit Products:

- Sale of Counterfeit Products: Consumers have reported receiving fake or substandard goods, particularly in categories like fashion and electronics. Amazon and Flipkart have both faced legal actions and fines due to the sale of counterfeit goods on their platforms.
- Lack of Consumer Redressal Mechanisms: The lack of effective redressal can erode trust in online shopping. Government initiatives to create an e-commerce consumer protection framework have yet to fully address these concerns.

### STRATEGIES TO IMPROVE THE E-COMMERCE SECTOR IN INDIA:

**Promote Fair Competition and Anti-Monopoly Regulations:** Implementing and enforcing stringent **anti-monopoly regulations** can prevent the concentration of market power in the hands of a few e-commerce giants. This can protect smaller businesses from being edged out by predatory pricing and unfair practices.

- The EU's Competition Law framework ensures that no single company can dominate the market unfairly. The Digital Markets Act (DMA) specifically targets large online platforms, requiring them to operate fairly and transparently, offering equal opportunities to smaller players.

**Supporting Small and Medium Enterprises (SMEs):** Implement government-backed Digital enablement initiatives to help SMEs go digital, providing them with the necessary tools, training, and subsidies to compete in the e-commerce space. These programs should focus on digital literacy, e-commerce platform integration, and online marketing strategies.

- South Korea's government provides extensive support to SMEs through initiatives like the "Smart Factory" program, which helps small manufacturers integrate digital technologies into their operations. The government also subsidizes e-commerce platform fees for small businesses.

**Building a Robust Digital Infrastructure:** Invest in enhancing digital infrastructure, particularly in rural areas, to ensure reliable internet access and efficient logistics.

- China's success in e-commerce is partly due to its investment in infrastructure, particularly in rural areas. Programs like "**Taobao Villages**" have helped rural communities gain access to e-commerce platforms, allowing local artisans and farmers to reach national and global markets.

**Regulating Foreign Direct Investment (FDI) to Protect Local Businesses:** Establish clear guidelines on FDI in e-commerce to prevent market domination by foreign players while allowing for healthy competition and innovation.

- Indonesia restricts foreign ownership in e-commerce businesses to protect its local market. At the same time, it encourages partnerships between foreign investors and local firms to boost knowledge transfer and domestic capacity building.

**Enhancing Consumer Protection and Data Privacy:** Ensure robust consumer protection laws and data privacy regulations that are strictly enforced. This includes safeguarding consumers from fraud, counterfeit products, and misuse of personal data, which is critical for building trust in e-commerce.

- The EU's General Data Protection Regulation (GDPR) sets a high standard for data protection, requiring companies to handle consumer data with utmost care. The EU also has strong consumer protection laws that help maintain trust in the digital economy.

**Supporting Local Artisans and Craftsmen:** Create specialized e-commerce platforms or sections within major platforms that promote local handicrafts and traditional products, ensuring these products reach a wider audience without being overshadowed by mass-produced goods.

- Mexico's "Tianguis Digital" initiative is a government-supported platform that connects local artisans with global buyers, promoting traditional crafts while protecting cultural heritage.

**Ensuring Inclusive Growth through Public-Private Partnerships (PPP):** Foster public-private partnerships to create initiatives that support local businesses. This could include shared logistics services, joint marketing campaigns, or collaborative digital literacy programs.

- Malaysia's "Go-eCommerce" initiative is a public-private partnership that provides SMEs with the resources needed to join the digital economy, including training, subsidies, and a platform to sell products online.

**Developing a Clear and Transparent Taxation Policy:** Implement a clear, transparent, and harmonized tax policy that treats e-commerce fairly while ensuring it does not place an undue burden on either online or offline businesses. This could include measures to prevent tax evasion and ensure that e-commerce companies contribute fairly to the economy.

- Australia has introduced a Goods and Services Tax (GST) on low-value imported goods purchased online, ensuring that e-commerce platforms contribute fairly to the local economy while protecting brick-and-mortar stores from unfair competition.

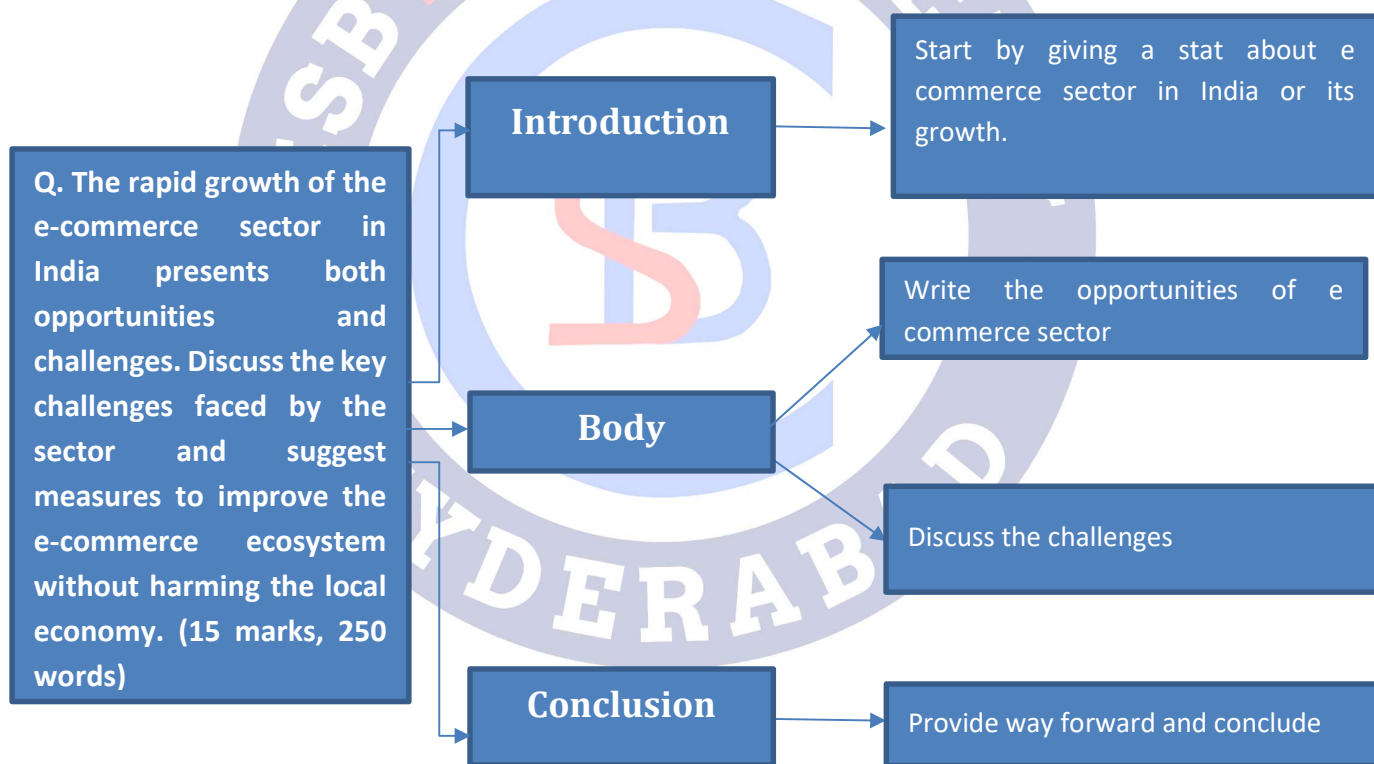
**Encouraging Sustainable Practices in E-Commerce:** Encourage e-commerce companies to adopt sustainable practices, such as reducing packaging waste, optimizing delivery routes, and sourcing products locally to minimize environmental impact.

- The Netherlands promotes sustainable e-commerce through incentives for companies that reduce their carbon footprint, including tax breaks for businesses that invest in green technologies and practices.

## PRACTICE QUESTION

**Q. The rapid growth of the e-commerce sector in India presents both opportunities and challenges. Discuss the key challenges faced by the sector and suggest measures to improve the e-commerce ecosystem without harming the local economy. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

The Indian e-commerce sector has experienced significant growth, with the market projected to reach \$300 billion by 2030. However, this rapid expansion has brought forth several challenges that could potentially hinder sustainable growth if not addressed adequately.

### OPPORTUNITIES OF E COMMERCE SECTOR IN INDIA:

**Market Size and Growth:** India is currently the **8th largest market** for e-commerce, and it is expected to become the **3rd largest globally by 2030**.

**Consumer Base:** The smartphone base has also increased significantly and is expected to reach 1.1 billion by 2025.

**Rural Penetration:** Out of the total internet connections, ~55% of connections were in urban areas, of which 97% of connections were wireless.

### **Government Initiatives:**

- **Digital India Campaign:** Launched in 2015, this initiative has played a crucial role in promoting internet usage across the country, indirectly boosting e-commerce.
- **E-Marketplaces for MSMEs:** The Government of India has launched various e-marketplaces to help Micro, Small, and Medium Enterprises (MSMEs) access wider markets, enhancing their participation in the digital economy.

### CHALLENGES:

1. **Logistical Issues:** Last-mile delivery remains a challenge, especially in rural areas, leading to delays and increased costs. High return rates further complicate inventory management.
2. **Regulatory Complexities:** Compliance with Goods and Services Tax (GST) and state-specific regulations adds to the operational burden, particularly for smaller businesses.
3. **Data Protection and Privacy:** The evolving landscape of data privacy laws, such as the Personal Data Protection Bill, requires significant investment in data centers and cybersecurity.
4. **Consumer Trust:** Dependence on Cash on Delivery (CoD) and the prevalence of counterfeit products undermine consumer confidence in online shopping.
5. **Market Competition:** Intense competition among giants like Amazon and Flipkart, coupled with predatory pricing strategies, threatens the survival of smaller players.

### MEASURES FOR IMPROVEMENT:

1. **Promote Fair Competition:** Implement anti-monopoly regulations similar to the EU's Digital Markets Act, which ensures a level playing field for all market participants.
2. **Support SMEs:** Government-backed initiatives, like South Korea's "Smart Factory" program, can help SMEs integrate digital technologies and compete effectively.
3. **Enhance Digital Infrastructure:** Investment in rural digital infrastructure, as seen in China's "Taobao Villages," can boost e-commerce penetration and support local economies.
4. **Strengthen Consumer Protection:** Adopting stringent consumer protection and data privacy laws akin to the EU's GDPR can help build trust and ensure secure online transactions.
5. **Encourage Sustainable Practices:** Following the Netherlands' model, incentivize e-commerce companies to adopt environmentally sustainable practices to minimize the sector's carbon footprint.

While the e-commerce sector holds immense potential for economic growth, addressing the challenges through strategic measures can ensure that the growth is sustainable and inclusive. Balancing the needs of the digital economy with the protection of local businesses is crucial for India's long-term economic development.



## 25. SPACE SECTOR OF INDIA

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development > Space Economy

#### REFERENCE NEWS:

The Space Day celebrations on August 23 are to commemorate the first anniversary of the successful landing of the Chandrayaan-3. President Droupadi Murmu visits the space exhibition with Union Minister of State for Science and Technology Jitendra Singh and ISRO Chairman S Somanath during the first National Space Day celebrations to commemorate the successful landing of the 'Vikram' Lander on the surface of the Moon.

#### PRESENT STATUS OF INDIA'S SPACE ECONOMY:

As per the report of Novaspace, a European consultancy,

- India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's Gross Domestic Product over the last decade.
- It has directly supported **96,000 jobs** in the public and private sector.
- For every dollar produced by the space sector, there was a **multiplier effect of \$2.54** to the Indian economy and India's space force was 2.5 times "more productive" than the country's broader industrial workforce.
- India's space sector has benefitted from decades of consistent investment with \$13 billion invested in the last decade it is the **8<sup>th</sup> largest space economy** (in terms of funding) in the world.
- The Indian space sector was diversifying and now had 700 companies including 200 start-ups and had seen revenues grow to \$6.3 billion in 2023, which was about **1.5% of the global space market**.
- Satellite communications contributed 54% to the space economy, followed by navigation (26%) and launches (11%). The main industries supported by the space sector were telecom (25%), information technology (10%) and administrative services (7%), the report highlighted.

## ROADBLOCKS TO DEVELOPMENT OF SPACE SECTOR IN INDIA:

**Limited Funding and Budget Constraints:** ISRO operates with a relatively modest budget using **frugal technology** compared to other leading space agencies like NASA or ESA. This limits the scale and frequency of missions, especially in areas like deep space exploration, human spaceflight, and large-scale commercial ventures.

- ISRO's budget constraints have impacted the timeline of ambitious projects such as the Gaganyaan mission (India's first human spaceflight mission), which has faced delays partly due to funding limitations.

**Technology and Infrastructure Gaps:** India lags behind in certain advanced space technologies, such as reusable launch vehicles, human-rated spaceflight systems, and advanced space habitats. Additionally, the infrastructure for large-scale satellite manufacturing and testing is limited.

- While ISRO has made progress in developing a reusable launch vehicle (RLV), it is still in the experimental phase, and the country has not yet developed a fully operational reusable rocket like SpaceX's Falcon 9.
- India is also dependent on Russia for advanced space habitats to train her astronauts for Gaganyaan mission.

**Regulatory and Policy Hurdles:** The space sector in India faces regulatory challenges, including unclear policies for private sector participation, satellite communication regulations, and intellectual property rights. These hurdles can discourage both domestic and international investments.

- The slow pace of implementing the Space Activities Bill, which is intended to provide a legal framework for commercial space activities, has created uncertainty among private players looking to invest in the Indian space economy.

**Human Resources and Skill Development:** There is a shortage of trained personnel with expertise in space technology and innovation, particularly in the private sector.

- The growth of space startups in India is hampered by the lack of available talent with specialized skills in satellite technology, data analytics, and space law.

**Sustainability and Space Debris:** As India's space activities increase, so does the risk of space debris, which can pose a threat to both existing satellites and future missions. Ensuring the sustainability of space operations is crucial.

- In response to this global concern, India has set an ambitious target to ensure all its space missions are debris-free by 2030. This commitment aligns with the ISRO recent efforts to implement deorbiting techniques and careful mission planning to minimise space debris

**Geopolitical Risks:** India's space ambitions could be impacted by geopolitical tensions, trade restrictions, and technology transfer limitations imposed by other countries.

- Restrictions on technology transfers from the United States or other advanced countries can slow down India's access to cutting-edge space technologies, affecting the pace of development in areas like satellite navigation or space exploration.

**Market Access and Commercialization:** The commercialization of space-based services such as satellite internet, space tourism, and asteroid mining is still in its infancy.

- Despite the success of the NavIC system, its global adoption has been limited compared to GPS. Expanding the market for NavIC-based products and services requires significant investment and strategic partnerships.

**International Collaboration and Competition:** While partnerships with other space agencies can bring in resources and expertise, they also require navigating complex political dynamics.

- Collaborations with countries like the U.S. (e.g., NASA-ISRO Synthetic Aperture Radar (NISAR) mission) are crucial, but India must also navigate competition with emerging space powers like China.

### TO FLY PAST THE HURDLES:

**Enhancing Private Sector Participation:** The Indian government established the Indian National Space Promotion and Authorization Center (IN-SPACe) and NewSpace India Limited (NSIL) to facilitate private sector participation in space activities.

- NASA's partnership with private companies like SpaceX and Boeing under the Commercial Crew Program is a model of successful collaboration, reducing costs and accelerating innovation.
- Creating venture capital funds and offering tax incentives for space startups can stimulate innovation and attract more private investment like ESA's Business Incubation Centres (BICs)

**Expanding International Collaborations:** India has collaborated with several countries, including the U.S., Russia, and France, on missions like the NASA-ISRO Synthetic Aperture Radar (NISAR) and the Chandrayaan series. ISRO's commercial arm, Antrix Corporation, has successfully marketed satellite launch services to several countries, enhancing India's global presence.

- India can initiate more joint missions with international space agencies, particularly in deep space exploration and human spaceflight, to share resources and expertise like ISS
- Establishing more bilateral agreements for technology exchange can help India access advanced technologies and methodologies from countries like the U.S., Europe, and Japan like Artemis Accords

**Strengthening Regulatory Frameworks:** India has proposed the Space Activities Bill to provide a legal framework for private sector participation and space activities, though it is yet to be enacted.

- The U.S. has a robust and comprehensive space policy framework that includes clear regulations for commercial space activities, intellectual property rights, and liability issues. India can draw inspiration from this to refine its regulatory environment.
- The UK Space Agency's Space law framework, which emphasizes collaboration between the government and private sector, could be a model for India to ensure a balance between regulation and innovation.

**Investing in Advanced Technologies:** Development of GSLV Mk III made significant progress in heavy-lift launch vehicles, which are crucial for future deep space missions and human spaceflight. Despite initial setbacks, India has developed indigenous cryogenic engines, bolstering its ability to launch heavier payloads into geostationary orbits.

- Invest more in the development and operationalization of RLVs, which can reduce the cost of space access and make space missions more sustainable. Integrate AI and robotics into space missions to enhance automation, data processing, and efficiency in space operations. SpaceX's success with reusable rockets like the Falcon 9 has significantly reduced launch costs. The use of advanced robotics and AI in Japan's Hayabusa missions demonstrates the importance of cutting-edge technology in achieving mission success.

**Addressing Space Debris and Sustainability:** Space Situational Awareness (SSA) targeting space debris free by 2030. Development of Project NETRA has implemented protocols for end-of-life management of satellites to mitigate space debris.

- Engage in international efforts to develop norms and standards for space debris management similar to ESA's Clean Space Initiative

**Boosting Human Resources and Skill Development:** ISRO has established training programs for young scientists and engineers, fostering a new generation of space professionals. Initiatives like Young Scientist Program (YUVIKA) and collaborations with educational institutions have been launched to promote space education.

- Strengthen partnerships between academia, industry, and ISRO to ensure that the space workforce is equipped with the latest skills and knowledge like NASA's collaborations with institutions like MIT and Germany's space education initiatives

**Enhancing Commercialization and Market Access:** Through Antrix Corporation and NSIL, India has marketed its launch services and space-based services globally, generating revenue and enhancing market access. India is working on expanding the reach and application of its navigation system, NavIC, beyond its borders.

- Develop and market satellite-based services, such as remote sensing data and satellite communication, to new industries and markets like SpaceX's Starlink project. Strengthen global branding and marketing efforts for Indian space services to attract international customers. The OneWeb initiative, which involves collaboration with multiple countries and companies, could inspire India to pursue multinational commercial ventures in the space sector.

### MAKING INDIA SELF-RELIANT IN SPACE SECTOR

Private Sector Participation in Space Activities Approved

- Reforms to help India leapfrog to next stages of space activities; to become a **Global technology powerhouse**
- To enhance socio-economic use of space assets & activities; **Large-scale employment opportunity in technology sector**
- IN-SPACe\*** to provide level playing field for private companies to use Indian space infrastructure  
\*Indian National Space Promotion and Authorization Centre
- NSIL\*\*** to reorient space activity models from 'supply driven' to a 'demand driven'  
\*\*New Space India Limited
- Allow ISRO to focus more on R&D activities,** exploration missions & human spaceflight programme

### FUTURE MISSIONS

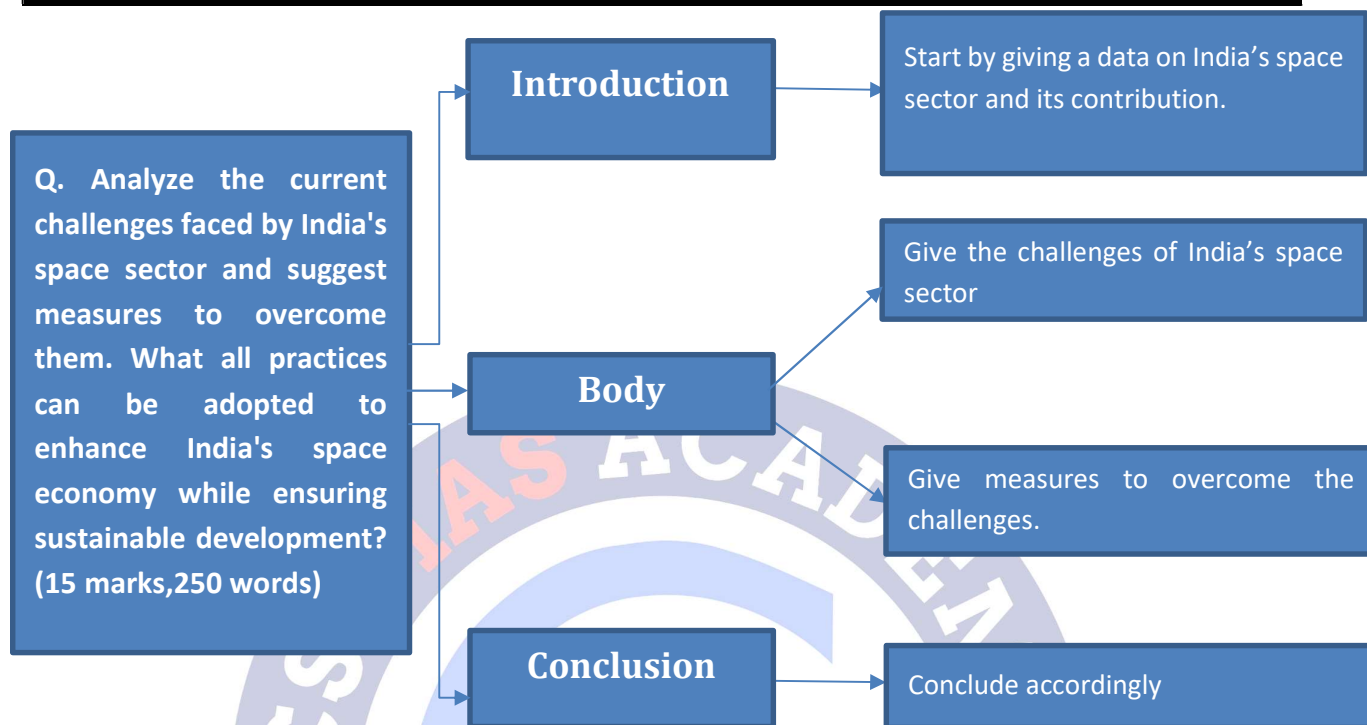
- X-RAY POLARIMETER SATELLITE (XPoSAT)**  
India's first dedicated polarimetry mission to study various dynamics of bright astronomical X-ray sources in extreme conditions
- NASA-ISRO SAR (NISAR)**  
A Low Earth Orbit (LEO) observatory being jointly developed by Nasa and Isro to provide spatially and temporally consistent data by mapping the Earth in 12 days
- SPADEX**  
A space docking experiment involving two spacecraft to develop technologies related to orbital rendezvous, formation flying for applications in human spaceflight, in-space satellite servicing and other operations
- MANGALYAAN-2**  
A follow-up interplanetary mission to Mangalyaan-1 to study the early Martian crust
- GAGANYAAN MISSIONS**  
Comprising three missions, Isro will launch the country's first human spaceflight on Gaganyaan-3 after testing the first two unmanned launches
- SHUKRAYAAN**  
An orbiter will be sent to Venus as part of the interplanetary mission
- KULASEKHARAPATNAM SPACEPORT**  
Isro's second spaceport is being developed at Kulasekharapatnam in Tamil Nadu's Thoothukudi district for smaller launches
- SAMUDRAYAAN**  
Other than forays into outer space, Isro's Vikram Sarabhai Space Centre (VSSC) is also developing a titanium alloy submersible for a 6,000-metre-deep undersea crewed mission in association with the National Institute of Ocean Technology (NIOT)

SOURCE: ISRO, BT RESEARCH

## PRACTICE QUESTION

**Q. Analyze the current challenges faced by India's space sector and suggest measures to overcome them. What all practices can be adopted to enhance India's space economy while ensuring sustainable development? (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

India's space sector has made remarkable progress being the 8<sup>th</sup> largest space economy contributing 24billion USD to India's GDP and 1.5% of global space sector. Yet it faces significant challenges that could hinder its future growth.

### KEY CHALLENGES FACED BY INDIA'S SPACE SECTOR:

- Limited Funding and Budget Constraints:** ISRO operates on a relatively modest budget, which restricts its capacity to undertake large-scale missions, such as deep space exploration and human spaceflight. Projects like Gaganyaan have faced delays partly due to financial constraints.
- Technology and Infrastructure Gaps:** India lags in certain advanced technologies, such as reusable launch vehicles and human-rated spaceflight systems. Infrastructure for large-scale satellite manufacturing is limited, further slowing progress.
- Regulatory and Policy Hurdles:** The lack of a comprehensive legal framework for private sector participation has created uncertainty. The slow implementation of the Space Activities Bill hampers domestic and international investments.

4. **Human Resources and Skill Development:** There is a shortage of specialized talent in space technology, particularly in the private sector. This talent gap hinders the growth of space startups.
5. **Sustainability and Space Debris:** Increasing space activities have escalated the risk of space debris, which threatens both existing satellites and future missions.
6. **Geopolitical Risks:** Technology transfer restrictions imposed by other nations, particularly the U.S., could slow India's access to cutting-edge space technologies.

#### **MEASURES TO OVERCOME CHALLENGES:**

1. **Enhancing Private Sector Participation:** India should draw inspiration from NASA's partnerships with private companies like SpaceX. Establishing venture capital funds and offering tax incentives could stimulate innovation.
2. **Expanding International Collaborations:** Joint missions with global space agencies and bilateral agreements for technology exchange could enhance India's capabilities.
3. **Strengthening Regulatory Frameworks:** Implementing the Space Activities Bill and refining regulations on intellectual property and liability will encourage private investment.
4. **Investing in Advanced Technologies:** Focus on developing reusable launch vehicles and integrating AI and robotics into space missions. This will enhance automation and reduce costs.
5. **Addressing Space Debris:** India must engage in international efforts to establish norms for space debris management, aligning with initiatives like ESA's Clean Space Initiative.
6. **Boosting Human Resources:** Strengthen partnerships between academia, industry, and ISRO to ensure the workforce is equipped with the latest skills, akin to NASA's collaborations with institutions like MIT.

India's space sector stands at a crucial juncture. By addressing these challenges through enhanced private sector participation, international collaboration, regulatory refinement, and technological advancement, India can not only sustain its space economy but also propel it to new heights, ensuring sustainable development and global leadership.

## 26. ELECTRIC VEHICLE POLICY

### IMPACT ANALYSIS

#### SYLLABUS:

GS3 > Science and Technology

#### REFERENCE NEWS:

In its Budget, the government has proposed an allocation of Rs 2,671.33 crore under the FAME scheme for 2024-25. While the budget estimate was Rs 5,171.97 crore for the 2023-24 fiscal, the revised estimate turned out to be Rs 4,807.40 crore. Although the allocation was lesser this time under the FAME scheme, the government has proposed an allocation of Rs 3,500 crore for the PLI Scheme for Automobiles and Auto Components for 2024-25. This figure is a significant increase, given that in 2023-24, the budget estimate was Rs 604 crore while the Revised Estimates turned up to be Rs 483.77 crore.

#### ELECTRIC VEHICLE POLICY IN INDIA:

India's push towards electric vehicles (EVs) is driven by the need to reduce pollution, decrease dependence on fossil fuels, and align with global environmental commitments. The evolution of India's e-vehicle policy reflects a gradual and multi-faceted approach to fostering an EV ecosystem in the country.

- **Early Initiatives (2006-2012):**
  - National Electric Mobility Mission Plan (NEMMP) 2020 (2012): Promote electric mobility and provide fiscal and monetary incentives to kickstart the EV market. It aims to deploy 5-7 million EVs on the road by 2020, reduce dependency on fossil fuels, and cut down on vehicular emissions.
- **Formation of FAME India Scheme (2015):**
  - Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) India:
    - FAME I (2015-2019):
      - Focus Areas: Demand creation, technology platform, pilot projects, and charging infrastructure.
      - Achievements: Supported the purchase of over 2.78 lakh EVs and the installation of around 500 charging stations.
    - FAME II (2019-2024):



- Focus Areas: Emphasis on the electrification of public transportation, including buses, three-wheelers, and shared mobility, as well as the development of charging infrastructure.
  - Targets: Deployment of 7,090 e-buses, 5 lakh e-three wheelers, 55,000 e-four wheelers, and 10 lakh e-two wheelers.
- **Policy and Regulatory Support (2018-2020):**
    - National Electric Mobility Mission Plan (NEMMP) 2020: Achieve significant penetration of EVs by 2020, along with an extensive rollout of charging infrastructure. Its focus areas are manufacturing and R&D in EV technology, retrofitting, and battery manufacturing.
    - Goods and Services Tax (GST) Reduction (2019): GST on EVs reduced from 12% to 5% and on chargers from 18% to 5%
    - Amendment to Central Motor Vehicles Rules (2019): It defined specifications for battery-operated vehicles and introduced rules for retrofitting hybrid electric systems in vehicles.
  - **State-Level Policies (2017 onwards):**
    - State EV Policies: Delhi EV Policy (2020) aims for 25% of all new vehicle registrations by 2024 to be EVs. Maharashtra, Karnataka, Telangana, Tamil Nadu, Andhra Pradesh: Each state has introduced incentives, subsidies, and infrastructure development plans to promote EV adoption.
  - **Recent Developments (2020-2023):**
    - Production-Linked Incentive (PLI) Scheme for Advanced Chemistry Cell (ACC) Battery Storage (2021): To boost domestic battery manufacturing and reduce import dependency.
    - Scrapage Policy (2021): To phase out old and polluting vehicles, promote green mobility, and ensure the proper disposal of batteries.
    - PLI Scheme for Automobile and Auto Components (2021): Enhance the manufacturing of electric vehicles and their components in India.
  - **Future Vision and International Commitments (2023 onwards):**
    - National Hydrogen Mission (2021): Develop hydrogen fuel cell technology as a complementary clean energy solution alongside EVs.
    - COP26 Commitments: Reduce carbon emissions, with a significant portion of the commitment involving the transition to electric mobility.

- **New Government Policy for EV:**
  - Aims to establish India as a hub for electric vehicle (EV) manufacturing, targeting global companies like Tesla and BYD.
  - Key provisions include reducing import duties for EVs imported as Completely Built Units (CBUs) to 15% from the previous range of 70%-100%, provided these EVs have a minimum CIF value of \$35,000. This reduced rate lasts for five years.
  - The policy mandates **localization targets**, requiring 25% localization within three years and 50% by the fifth year to integrate production with domestic market needs.

### EFFECTIVENESS OF EV POLICY:

- **Increased Adoption of Electric Vehicles:**
  - Sales Growth: The FAME II scheme has resulted in substantial growth in EV sales, particularly in the two-wheeler and three-wheeler segments. For instance, in 2022, **India saw a 132% increase in EV sales compared to the previous year.**
    - Companies like Ola Electric, Ather Energy, and Hero Electric have seen significant growth in sales, driven by the subsidies and incentives provided under FAME II.
- **Development of Charging Infrastructure:**
  - Charging Stations: Under FAME II, the government approved the installation of 2,636 charging stations across 62 cities. This development has been crucial in alleviating range anxiety among potential EV buyers.
    - Tata Power has set up over 1,000 EV charging stations across the country, contributing to the growing infrastructure.
- **Boost to Domestic Manufacturing:**
  - Manufacturing Hubs: States like Tamil Nadu and Karnataka have become major hubs for EV manufacturing. Tamil Nadu's EV policy aims to attract investments worth ₹50,000 crores and create 150,000 jobs.
    - The establishment of EV manufacturing plants by companies like Ola Electric in Tamil Nadu and Ather Energy in Karnataka has boosted local economies and job creation.
- **Reduction in Pollution and Carbon Emissions:**
  - Environmental Benefits: Increased adoption of EVs is contributing to the reduction of vehicular emissions. For example, the Delhi government's EV policy aims to have 25% of new vehicle registrations as EVs by 2024, significantly cutting down on urban pollution.

- A study by the Centre for Energy Finance (CEEW-CEF) projected that India's EV transition could cumulatively save 474 million tonnes of oil equivalent and reduce carbon dioxide emissions by 846 million tonnes by 2030.
- **Innovation and Technological Advancement:**
  - Battery Manufacturing: The Production-Linked Incentive (PLI) Scheme for Advanced Chemistry Cell (ACC) Battery Storage aims to establish a domestic battery manufacturing ecosystem. Companies like Reliance New Energy Solar and Ola Electric have announced plans to set up large-scale battery manufacturing plants.
  - Research and development in battery technology and EV components have accelerated, leading to improvements in battery life, charging speed, and overall vehicle performance.
- **Economic Impact:**
  - Job Creation: The EV industry is generating new employment opportunities in manufacturing, sales, service, and infrastructure development. For instance, Tata Motors plans to hire 3,000 people for its EV segment by 2024.
  - Investment Attraction: The policy has attracted significant domestic and foreign investments. For example, Hyundai announced an investment of ₹4,000 crores in India for EV development and manufacturing.
- **Consumer Awareness and Acceptance:**
  - Increased Awareness: Government campaigns and incentives have raised awareness about the benefits of EVs, leading to greater consumer acceptance. Initiatives like the Delhi government's Switch Delhi campaign have been instrumental in educating the public about EVs.
  - Cost Savings: Consumers are increasingly recognizing the long-term cost savings associated with EVs due to lower running and maintenance costs compared to internal combustion engine (ICE) vehicles.

### **CHALLENGES OF EV POLICY OF INDIA:**

- **Insufficient Charging Infrastructure:** While the government has approved the installation of numerous charging stations under FAME II, the actual number of functional and accessible charging stations remains inadequate, especially in semi-urban and rural areas.
  - For example, as of 2023, cities like Mumbai and Kolkata still have fewer than 200 public charging stations, causing range anxiety among potential EV users.
- **High Initial Cost:** The upfront cost of EVs remains higher than conventional vehicles, mainly due to the expensive battery components. This cost barrier is significant despite subsidies and incentives.

- For instance, the Tata Nexon EV, one of the more affordable EVs in India, still costs around ₹14 lakhs, which is significantly higher than its ICE counterparts.
- **Battery Technology and Supply Chain Issues:** India relies heavily on imports for lithium-ion batteries and other critical components, leading to supply chain vulnerabilities and higher costs.
  - The global shortage of semiconductor chips in 2021-2022 significantly impacted EV production in India, causing delays and increased prices.
- **Lack of Consumer Awareness and Perception Issues:** Many consumers are still unaware of the benefits and potential cost savings of EVs over their lifecycle. Additionally, there are misconceptions about the performance and reliability of EVs.
  - A survey by the Indian Institute of Technology (IIT) Delhi in 2022 found that 60% of respondents were unaware of government incentives for EVs, and 40% doubted the reliability of EV technology.
- **Inadequate Financing Options:** Financial institutions are often hesitant to provide loans for EV purchases due to concerns over resale value and limited market history.
  - In 2021, only a few banks like SBI and Axis Bank had begun offering loans specifically for EVs, with higher interest rates compared to traditional vehicle loans.
- **Policy Implementation and Coordination:** The lack of a unified national policy leads to inconsistencies and coordination issues among various states and between central and state governments.
  - For example, while Delhi offers substantial subsidies and incentives for EV buyers, states like Bihar and Jharkhand lag behind in providing similar support, leading to regional disparities.
- **Infrastructure and Grid Capacity:** The existing power grid infrastructure in many parts of India is not equipped to handle the additional load from widespread EV charging, leading to potential grid stability issues.
  - In states with frequent power outages like Uttar Pradesh and West Bengal, the reliability of charging infrastructure becomes a significant concern.
- **Environmental and Recycling Concerns:** There is a growing concern over the environmental impact of battery disposal and the lack of robust recycling infrastructure.
  - A report by the Council on Energy, Environment, and Water (CEEW) in 2023 highlighted that India lacks sufficient facilities for recycling lithium-ion batteries, posing a long-term environmental risk.

### WAY FORWARD:

○ **INFRASTRUCTURAL ADVANCEMENT:**

- PPP Framework to enhance charging infrastructure across urban and rural areas
  - Norway has over 16,000 public charging points, including high-speed chargers, ensuring minimal range anxiety.
- Investment in Smart grid technology and promote off-peak charging to manage grid demand
  - The Netherlands uses smart charging systems to balance grid load and optimize energy use.
- EV-friendly urban design
  - Amsterdam integrates EV infrastructure into its urban planning, ensuring accessibility and convenience.
- Promote the use of renewable energy sources for EV charging to ensure a green energy cycle.
  - Iceland uses its abundant geothermal energy to power EVs, reducing reliance on fossil fuels.
- Increase funding for EV and battery research through public-private partnerships and academic collaborations.
  - South Korea invests heavily in EV R&D, focusing on next-gen battery technologies.
- Promote the electrification of public transport systems, including buses and taxis, in major cities.
  - Shenzhen, China, has electrified its entire public bus fleet, significantly reducing urban pollution
- Establish comprehensive recycling facilities and policies for battery reuse and safe disposal.
  - Japan has developed robust battery recycling systems and second-life applications for EV batteries.

○ **POLICY ADVANCEMENT:**

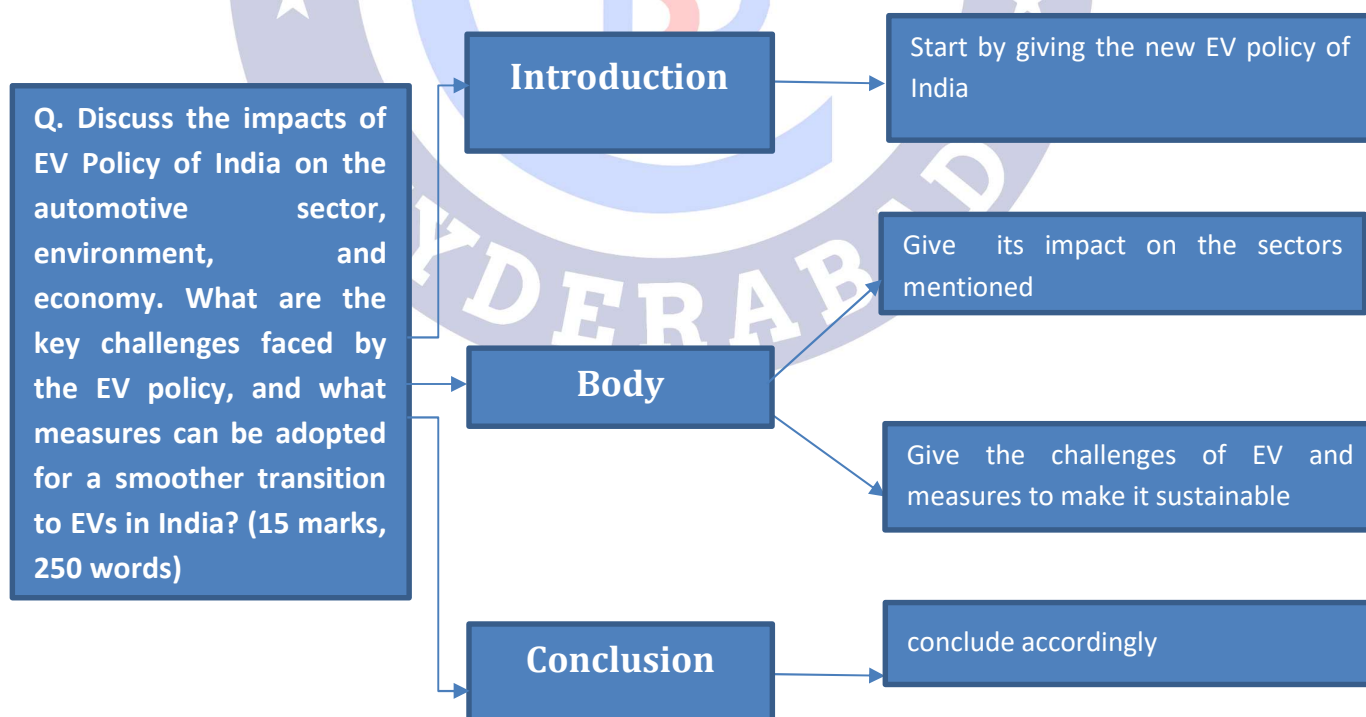
- Provide grants and incentives for startups and SMEs working on innovative EV solutions.
  - The UK's Innovate UK program supports startups and SMEs in the EV sector.
- Launch nationwide campaigns to educate the public on the environmental and economic benefits of EVs.
  - Norway's government runs extensive awareness campaigns highlighting the benefits of EVs.
- Implement and enforce stricter emission norms to encourage a shift from ICE vehicles to EVs.
  - California's zero-emission vehicle (ZEV) mandate requires automakers to produce a certain percentage of ZEVs
- Develop a unified national policy with clear guidelines and goals, ensuring consistency across states.

- The European Union (EU) has a cohesive policy framework for member states to follow.
- Enhance the Production-Linked Incentive (PLI) schemes for EV and battery manufacturers. Encourage foreign direct investment (FDI) and technology transfers.
  - China's extensive investment in local EV and battery manufacturing has made it a global leader.
- Collaborate with banks and financial institutions to offer low-interest loans and flexible payment options for EV purchases
  - In the US, states like California provide low-interest loans and rebates for EV buyers.
- Increase subsidies for EVs, reduce GST further, and offer tax rebates. Provide additional incentives for scrapping old ICE vehicles.
  - Germany offers subsidies up to €9,000 for EV purchases, along with tax exemptions.

## PRACTICE QUESTION

Q. Discuss the impacts of EV Policy of India on the automotive sector, environment, and economy. What are the key challenges faced by the EV policy, and what measures can be adopted for a smoother transition to EVs in India? (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

India's push towards electric vehicles (EVs) is driven by the need to reduce pollution, decrease dependence on fossil fuels, and align with global environmental commitments. The evolution of India's e-vehicle policy reflects a gradual and multi-faceted approach to fostering an EV ecosystem in the country.

### IMPACTS OF EV POLICY IN INDIA:

1. **Increased Adoption of EVs:** FAME II resulted in substantial growth in EV sales, particularly in two-wheeler and three-wheeler segments. In 2022, India saw a 132% increase in EV sales. Companies like Ola Electric and Ather Energy experienced significant growth.
2. **Development of Charging Infrastructure:** Government approved the installation of 2636 charging stations across 62 cities under FAME II. Tata Power has set up over 1000 EV charging stations.
3. **Boost to Domestic Manufacturing:** States like Tamil Nadu and Karnataka have become major hubs for EV manufacturing. Ola Electric and Ather Energy established manufacturing plants.
4. **Reduction in Pollution and Carbon Emissions:** EV adoption is reducing vehicular emissions. Delhi's EV policy aims for 25% EV registrations by 2024, cutting urban pollution.
5. **Economic Impact:** EV industry generating employment in manufacturing and services. Tata Motors plans to hire 3000 people for its EV segment by 2024.

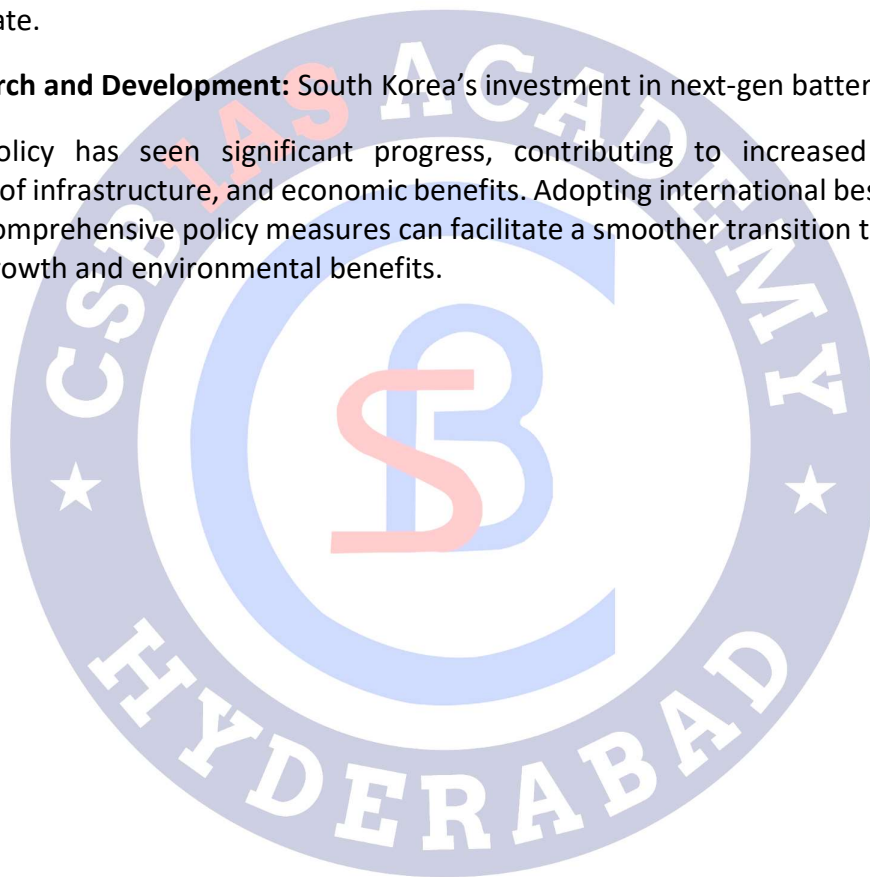
### CHALLENGES OF EV POLICY IN INDIA:

1. **Insufficient Charging Infrastructure:** Cities like Mumbai and Kolkata have fewer than 200 public charging stations.
2. **High Initial Cost:** Tata Nexon EV costs around ₹14 lakhs, higher than its ICE counterparts.
3. **Battery Technology and Supply Chain Issues:** Global semiconductor shortage in 2021-2022 impacted EV production.
4. **Lack of Consumer Awareness:** IIT Delhi survey found 60% of respondents unaware of government incentives for EVs.
5. **Inadequate Financing Options:** Only a few banks like SBI offer EV-specific loans, often at higher interest rates.
6. **Environmental and Recycling Concerns:** Lack of sufficient facilities for recycling lithium-ion batteries.
- 7.

### MEASURES FOR A SMOOTHER EV TRANSITION:

1. **Enhancing Charging Infrastructure:** Norway's extensive public charging network, Netherlands' smart charging systems.
2. **Financial Incentives and Subsidies:** Germany's subsidies and tax exemptions for EV purchases.
3. **Strengthening Domestic Manufacturing:** China's investment in local EV and battery manufacturing.
4. **Policy and Regulatory Support:** EU's cohesive policy framework, California's ZEV mandate.
5. **Research and Development:** South Korea's investment in next-gen battery technologies.

India's EV policy has seen significant progress, contributing to increased EV adoption, development of infrastructure, and economic benefits. Adopting international best practices and focusing on comprehensive policy measures can facilitate a smoother transition to EVs, ensuring sustainable growth and environmental benefits.





## 27. INCLUSIVE GROWTH

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development >> Inclusive Growth

#### REFERENCE NEWS:

Speaking at the conclusion of the two-day conference of Governors, President of India Droupadi Murmu highlighted the suggestion of a sub-group of Governors for the proper utilisation of resources allocated for the welfare of tribal communities, and expressed hope that all Governors would give priority to this suggestion.

The President said that the development of the country depended on the inclusive and accelerated development of the States. By promoting the participation of Scheduled Areas and Scheduled Tribes in the process of the country's development, Governors can contribute to fulfilling the national resolve of inclusive development.

#### INCLUSIVE GROWTH:

As per **OECD** (Organisation for Economic Co-operation and Development), inclusive growth is economic growth that is distributed fairly across society and creates opportunities for all.

**UNDP** described it as “the process and the outcome where all groups of people have participated in growth and have benefited equitably from it”.



## CHALLENGES TO INCLUSIVE GROWTH IN INDIA:

### ON SOCIAL DIMENSIONS:

- **Gender Inequality:**
  - In WEF's Global Gender Gap Index, India ranks 127 out of 146 countries and has closed 64.3% of the overall gender gap.
  - India's female labour force participation rate is quite low at around 37% as compared to the global average of 47% as per the Periodic Labour Force Survey 2022-23.
  - 42.3% of women and 62.5% of men own a house, while ownership of land, either solely or jointly, stands at 31.7% for women and 43.9% for men as per NFHS 2019-21.
  - Gender based discrimination was clearly evident with rise in cases of dowry deaths and domestic violence incidents during Covid time.
  - India's LGBTQ+ community too faces negative discrimination in workplaces, at home and even in enjoyment of their rights facing social ostracization and exclusion.
- **Poverty Reduction:**
  - India has registered a significant decline in multidimensional poverty in India from 29.17% in 2013-14 to 11.28% in 2022-23 as per Niti Ayog.
  - But still, India is facing poverty crisis with significant income and wealth disparities with inter generation and intra generational inequity within regions, communities and classes in India.
  - The top 10% of the population holds a majority of the country's wealth, while the bottom 50% struggle with basic needs as per Oxfam Report.
- **Educational Inequality:**
  - Rural schools often lack basic facilities and qualified teachers, leading to poor educational outcomes.
  - Recent reports show schools not giving 25% of seat reservation to backward classes as per RTE Act 2009.
- **Regional Disparities:**
  - Urban-Rural divide has raised issues like imbalance in living standards, job opportunities and form of employment being formal or informal
  - States like Bihar and Uttar Pradesh lag behind in terms of economic growth and human development compared to states like Maharashtra and Gujarat.

- **Class Disparities:**
  - Discrimination and exclusion of certain social groups, such as Scheduled Castes, Scheduled Tribes, and minorities, prevent them from fully participating in economic activities.
  - The economic growth of India has not resulted in a corresponding increase in its **Human Development Index (HDI)**. According to the Human Development Report of 2021-22, India ranks 132 out of 191 countries.

### ON ECONOMIC DIMENSIONS:

- **Unemployment and Underemployment:**
  - According to the Ministry for Skill Development and Entrepreneurship (MSDE), among persons aged 15-29, only about 2% have received formal vocational training, and 8% have received non-formal vocational training.
  - This skilled labour force rate is compared to the 96% skilled in South Korea and 87% of China
  - 90% of the employment is in informal economy as per PLFS
  - Jobless growth due to lower employment elasticity.
- **Agriculture Distress:** Around 55-65% of Indian population relies on agricultural and related activities. Also Indian agriculture is monsoon relied hence suffers the unpredictability and ambushes of Monsoon breaks, drought spells, vagaries of climate change like heat waves, cold waves, pest attacks etc.
  - Farmers in regions like Vidarbha and Marathwada have faced severe agrarian crises, leading to distress and suicides.
- **Essential Services Inaccessibility:**
  - **Health:** India spends a mere 2.1% of its GDP for healthcare. The out of pocket expenditure that falls on Indian public is around 47%. Also India lacks facilities for tertiary health care services that was evident during pandemics and the rise in non-communicable disease burden.
  - **Water:** With rise in water pollution levels and exacerbation of fall in ground water levels, India is falling to become a water scarce country from being water stressed.
- **Infrastructure Deficit:** Inadequate infrastructure in transportation, energy, and digital connectivity hampers economic activities, especially in rural and remote areas.
  - Many villages in tribal areas of states like Chattisgarh, KBK corridor of Odisha, etc, still lack reliable electricity and road connectivity, affecting their economic development.
- **Financial Inclusion:** Limited access to financial services such as banking, credit, and insurance restricts the economic opportunities for the poor and marginalized.

- Despite efforts like the Pradhan Mantri Jan Dhan Yojana (PMJDY), a significant portion of the population remains outside the formal financial system.
- Also digitalised financial inclusion also has led to excluding many especially women and illiterate.

### INDIA'S ACTION FOR INCLUSIVE GROWTH:

Several schemes are being implemented by the government for inclusive growth which includes the following:

- Mahatma Gandhi National Rural Employment Guarantee Act Scheme (MGNREGA)
- Prime Minister's Employment Generation Programme (PMEGP)
- Mudra Bank scheme
- Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)
- Deendayal Antyodaya Yojana- National Urban Livelihoods Mission (DAY-NULM)
- Sarva Siksha Abhiyan (SSA)
- National Rural Health Mission (NRHM)
- Bharat Nirman
- Swachh Bharat Mission
- Mission Ayushman
- Pradhan Mantri Jan Dhan Yojana
- Government is working with NGOs and International groupings in policy making eg: DISHA Project is being implemented in partnership with UNDP for creating employment and entrepreneurship opportunities for women in India.
- NITI Aayog's Strategy for New India @75 has the following objectives for the inclusive growth:
  - To have a rapid growth, which is inclusive, clean, sustained and formalized.
  - To Leverage technology for inclusive, sustainable and participatory development by 2022-23.
  - To have an inclusive development in the cities to ensure that urban poor and slum dwellers including recent migrants can avail city services.
  - To make schools more inclusive by addressing the barriers related to the physical environment (e.g. accessible toilets), admission procedures as well as curriculum design.
  - To make higher education more inclusive for the most vulnerable groups.
  - To provide quality ambulatory services for an inclusive package of diagnostic, curative, rehabilitative and palliative care, close to the people.
  - To prepare an inclusive policy framework with citizens at the centre.

## WHAT MORE TO BE DONE FOR SUSTAINABLE INCLUSIVE GROWTH?

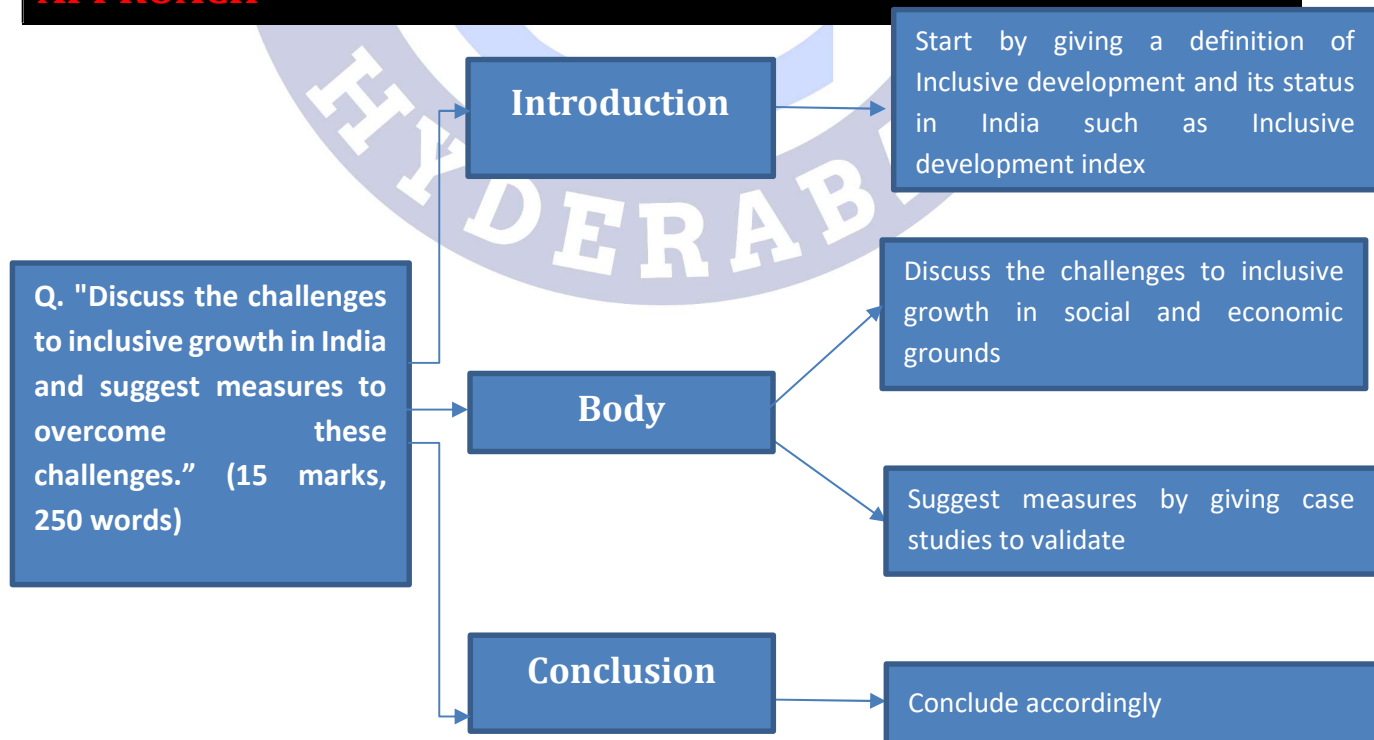
- **Promoting Green Growth:** Invest in renewable energy projects, improve energy efficiency standards, and incentivize green technologies. Programs like the International Solar Alliance (ISA) can be expanded.
  - The Energiewende (energy transition) policy of Germany focuses on increasing the use of renewable energy sources and enhancing energy efficiency.
- **Fostering Social Enterprises and Impact Investing:** Encourage the growth of social enterprises by providing funding, tax incentives, and supportive regulations. Develop impact investing frameworks to attract private investment in socially beneficial projects.
  - The UK has a well-developed ecosystem for social enterprises and impact investing, supported by policies like the Social Value Act.
- **Strengthening Social Protection Systems:** Expand social protection programs to cover the unorganized sector and improve access to healthcare, education, and social security for all citizens.
  - Nordic countries have robust social protection systems, including universal healthcare, education, and social security.
- **Enhancing Digital Inclusion:** Improve digital infrastructure and literacy to ensure all citizens can access digital services. Promote e-governance initiatives to enhance transparency and efficiency.
  - Estonia's e-Residency and digital identity programs have made government services more accessible and efficient.
- **Implementing Inclusive Urban Planning:** Develop inclusive urban planning policies that prioritize affordable housing, green spaces, and sustainable public transport systems in growing cities.
  - Singapore's urban planning focuses on inclusive housing, green spaces, and efficient public transportation.
- **Supporting Agrarian and Rural Development:** Invest in agricultural research and development, promote sustainable farming practices, and provide better market access and infrastructure for rural areas.
  - The Netherlands has a highly productive and sustainable agricultural sector, supported by technology and innovation.
- **Encouraging Women's Economic Participation:** Implement policies that support women's participation in the workforce, such as parental leave, flexible working conditions, and affordable childcare services.
  - Iceland has one of the highest rates of female labour force participation due to supportive policies like parental leave and affordable childcare.

- **Ensuring Environmental Sustainability:** Strengthen environmental protection laws, promote reforestation, invest in renewable energy, and develop sustainable tourism practices.
  - Costa Rica has achieved significant success in environmental conservation through policies promoting reforestation, renewable energy, and ecotourism.
- **Promoting Inclusive Financial Services:** Expand mobile banking and digital financial services to reach underserved populations. Promote financial literacy programs to enhance the usage of financial services.
  - Kenya's M-Pesa mobile banking system has significantly improved financial inclusion.
- **Developing a Robust Skill Development Ecosystem:** Enhance vocational training and education systems to align with industry needs. Promote partnerships between educational institutions and industries to provide practical training and employment opportunities.
  - Germany's dual education system combines classroom education with vocational training, providing a skilled workforce.

## PRACTICE QUESTION

Q. "Discuss the challenges to inclusive growth in India and suggest measures to overcome these challenges." (15 marks, 250 words)

## APPROACH



## MODEL ANSWER

Inclusive growth, as defined by the OECD, is economic growth that is distributed fairly across society and creates opportunities for all. In India, inclusive growth aims to ensure that benefits of economic growth reach every section of society, particularly the marginalized and disadvantaged. Also Inclusive Development Index by WEF ranks India as 62<sup>nd</sup> among 74 emerging economies.

### CHALLENGES TO INCLUSIVE GROWTH IN INDIA:

1. Economic Inequality: Significant disparities in income and wealth exist.
  - Example: The top 10% of the population holds a majority of the country's wealth, while the bottom 50% struggles with basic needs.
2. Unemployment and Underemployment: High levels of unemployment, particularly among youth.
  - Example: The Periodic Labour Force Survey shows high unemployment rates among urban youth.
3. Agricultural Distress: Low productivity and high vulnerability to climate change.
  - Example: Agrarian crises in regions like Vidarbha and Marathwada leading to farmer suicides.
4. Educational Inequality: Disparities in access to quality education between urban and rural areas.
  - Example: Rural schools often lack basic facilities and qualified teachers.
5. Gender Inequality: Disparities in education, employment, and political representation.
  - Example: India ranks 127 out of 146 countries in the WEF's Global Gender Gap Index.
6. Financial Inclusion: Limited access to financial services.
  - Example: Despite efforts like the Pradhan Mantri Jan Dhan Yojana (PMJDY), a significant portion of the population remains outside the formal financial system.
  -

7. Regional Disparities: Uneven development across different states.
  - Example: States like Bihar and Uttar Pradesh lag behind in terms of economic growth and human development compared to states like Maharashtra and Gujarat.

### **MEASURES TO OVERCOME CHALLENGES:**

1. Promoting Green Growth: Invest in renewable energy projects, improve energy efficiency standards, and incentivize green technologies.
  - Example: Expand programs like the International Solar Alliance (ISA).
2. Strengthening Social Protection Systems: Expand social protection programs to cover the unorganized sector.
  - Example: Improve access to healthcare, education, and social security for all citizens.
3. Enhancing Digital Inclusion: Improve digital infrastructure and literacy.
  - Example: Promote e-governance initiatives to enhance transparency and efficiency.
4. Implementing Inclusive Urban Planning: Develop policies prioritizing affordable housing, green spaces, and sustainable public transport.
  - Example: Singapore's urban planning model.
5. Supporting Agrarian and Rural Development: Invest in agricultural research and sustainable farming practices.
  - Example: The Netherlands' productive and sustainable agricultural sector.
6. Encouraging Women's Economic Participation: Implement policies supporting women's workforce participation.
  - Example: Iceland's parental leave and affordable childcare policies.
7. Ensuring Environmental Sustainability: Strengthen environmental protection laws and promote reforestation.
  - Example: Costa Rica's environmental conservation policies.



8. Promoting Inclusive Financial Services: Expand mobile banking and digital financial services.
  - Example: Kenya's M-Pesa mobile banking system.

**CONCLUSION:**

Achieving sustainable inclusive growth in India requires a comprehensive approach that integrates economic, social, and environmental strategies. Implementing these measures will not only improve the quality of life for the current population but also ensure a sustainable future for generations to come.



## 28. CLEAN ENERGY TRANSITION

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development >> Energy Infrastructure

#### REFERENCE NEWS:

In her seventh consecutive Budget speech, the Finance Minister announced measures indicating India's commitment to its **clean energy transition**. These measures include developing policies on pumped hydro storage, and energy transition pathways to support nuclear energy and energy efficiency. Yet, the memories of this summer's record-breaking heatwaves, which drove up power demand, are still fresh. They reflect both a growing economy and a warming climate.

#### INDIA'S ENERGY INFRASTRUCTURE:

As per the Electricity Report 2024 by IEA,

- India is projected to rely on coal to meet rising electricity demand through 2026. This is expected to meet 68% of India's electricity demand by 2026.
- **Renewable energy** generation remained stable with around **21% share of electricity generation in 2023**. There was a rise in solar and wind power output which was largely offset by reduced hydropower output. Renewable Energy is accounting for nearly **44% of total installed capacity in 2023**.
- To ensure uninterrupted power supply, the government mandated a blending of a minimum of 6% of imported coal with domestic coal until March 2024.
- India currently has 23 operable nuclear reactors providing about 2% of the country's electricity.
- Total Installed Capacity of both Fossil and Non fossil fuel is around 417GW
- Of this the RE Capacity is 191 GW including 85 GW of solar power
- Fossil fuel contributes to around 57%
- Renewable energy including hydropower form 41.4%
- Nuclear fuel around 1.6%
- India imports over **80% of its oil needs**, making it vulnerable to global price fluctuations and geopolitical tensions.

#### INDIA'S RENEWABLE ENERGY TARGET:

India is set to achieve its short term and long-term targets under the **Panchamrit action plan**, like

- Reaching a non-fossil fuel energy capacity of 500 GW by 2030, potentially 1TW by 2035
- Fulfilling at least half of its energy requirements via renewable energy by 2030
- Reducing CO<sub>2</sub> emissions by 1 billion tons by 2030; reducing carbon intensity below 45 percent by 2030.
- Net-Zero emission target by 2070.
- India announced plans in 2022 **to triple its nuclear capacity by 2032**, aiming to add 13 GW, with 6 GW currently under construction. Based on the country's project timeline, nuclear power generation is expected to increase rapidly during 2024-2026, with new plants totalling an estimated 4 GW of capacity entering commercial operation.
- According to a CEEW-NRDC report, India can potentially create about 3.4 million jobs (short and long term) by installing 238 GW solar and 101 GW new wind capacity by 2030.

### **POTENTIAL OF INDIA FOR RENEWABLE ENERGY:**

**Solar Energy Potential:** India is endowed with vast solar energy potential, with an average of 300 sunny days a year and an annual solar potential of around 5,000 trillion kWh. The country has the technical potential to generate over 748 GW of solar power.

- **Bhadla Solar Park, Rajasthan:** One of the largest solar parks in the world, with a capacity of 2,245 MW.
- **Rewa Ultra Mega Solar Park, Madhya Pradesh:** A significant solar project with a capacity of 750 MW.
- Initiatives like ISA, PM Surya Ghar Yojana etc boost solar power production

**Wind Energy Potential:** India's wind energy potential is estimated at 302 GW at 100 meters above ground level. The country has a coastline of over 7,500 km, which is favorable for offshore wind energy development.

- **Muppandal Wind Farm, Tamil Nadu:** The largest onshore wind farm in India with an installed capacity of 1,500 MW.
- **Gujarat Wind Farms:** Gujarat has significant wind energy installations with a capacity of over 7,000 MW.
- Initiatives like offshore wind energy policy boost the wind energy capacity

**Hydropower Potential:** India has a potential of around 145 GW of hydropower, including small hydro projects. The country's vast river systems provide ample opportunities for hydroelectric power generation.

- **Tehri Dam, Uttarakhand:** One of the largest hydroelectric projects in India with a capacity of 1,000 MW.

**Nuclear Energy Potential:** India's nuclear energy potential is substantial, with an emphasis on thorium-based reactors due to the country's large thorium reserves. The government aims to increase nuclear capacity to 22.48 GW by 2031.

- **Kudankulam Nuclear Power Plant, Tamil Nadu:** The largest nuclear power station in India, with a capacity of 2,000 MW (two reactors of 1,000 MW each)

**Biomass Energy Potential:** India has a biomass potential of about 18 GW, with an additional 5 GW potential from bagasse-based cogeneration in sugar mills. Agricultural residues and organic waste provide ample biomass resources.

- **Punjab Biomass Power Plant:** One of the largest biomass-based power plants in India with a capacity of 12 MW.
- **Sugarcane Bagasse Cogeneration Projects:** Various sugar mills in Uttar Pradesh and Maharashtra utilize bagasse for power generation.

**Geothermal Energy Potential:** India has moderate geothermal potential, with estimates around 10 GW. Regions like the Himalayas, Western Ghats, and certain parts of the Deccan Plateau are promising for geothermal energy exploration.

- **Puga Valley, Ladakh:** Identified as a high-potential geothermal field with plans for pilot projects.
- **Tatapani, Chhattisgarh:** Another potential site for geothermal energy development.

### CHALLENGES TO INDIA'S CLEAN ENERGY TRANSITION:

#### **Financial Constraints:**

- **High Initial Costs:** The initial capital expenditure for setting up renewable energy infrastructure, such as solar and wind farms, is significantly high.
  - Example: Solar power plants require substantial investment in photovoltaic cells and storage systems.
- **Limited Access to Finance:** Small and medium enterprises (SMEs) and individual consumers often face difficulties in accessing finance for renewable energy projects.
  - According to the International Finance Corporation (IFC), there is a financing gap of around \$450 billion for renewable energy projects in India.

#### **Technological Challenges:**

- **Intermittency of Renewable Sources:** Solar and wind energy are intermittent and depend on weather conditions, leading to reliability issues.
  - Solar panels generate power only during daylight, and wind turbines are dependent on wind speeds. Changing weather patterns led to a 15% fall in hydropower generation in 2023.

- **Energy Storage:** Effective and affordable energy storage solutions are necessary to balance supply and demand.
  - The implementation of large-scale battery storage systems, such as Tesla's Powerwall, is still in nascent stages in India.

#### Infrastructure and Grid Integration:

- **Inadequate Grid Infrastructure:** The existing power grid infrastructure is not adequately equipped to handle the variable nature of renewable energy.
  - Example: The integration of renewable energy into the national grid requires significant upgrades to transmission and distribution networks.
- **Transmission Losses:** High transmission and distribution losses reduce the efficiency of energy delivery.
  - India has one of the highest transmission and distribution losses in the world, averaging around 20%.

#### Regulatory and Policy Challenges:

- **Inconsistent Policies:** Frequent changes in policies and regulatory frameworks create uncertainty for investors.
  - The lack of a stable policy environment can deter long-term investments in renewable energy.
- **Subsidies and Incentives:** While subsidies for renewable energy exist, they are often insufficient or inconsistently applied.
  - Example: The delay in disbursing subsidies for rooftop solar installations has slowed their adoption.

#### Land Acquisition and Environmental Concerns:

- **Land Acquisition:** Acquiring land for large-scale renewable energy projects can be challenging due to high population density and land ownership issues.
  - The proposed solar park in Rajasthan faced delays due to land acquisition disputes with local communities.
- **Environmental Impact:** Renewable energy projects, particularly hydropower, can have significant environmental impacts, such as habitat disruption.
  - Example: Large hydropower projects in the Himalayas like Joshimath, Malana have faced opposition due to their potential impact on local ecosystems.

### Social Acceptance and Awareness:

- **Public Awareness:** There is a lack of awareness and understanding among the general public about the benefits of renewable energy.
  - Example: Misconceptions about the reliability and cost of renewable energy can hinder adoption.
- **Community Resistance:** Local communities may resist renewable energy projects due to concerns about displacement and livelihood disruption.
  - Wind farm projects in Tamil Nadu faced opposition from local farmers concerned about land use changes. Kudankulam Nuclear plant protests

### Skill Gaps and Workforce Training:

- **Technical Expertise:** There is a shortage of skilled professionals with expertise in renewable energy technologies.
  - The renewable energy sector requires specialized training programs to build a competent workforce.
- **Vocational Training:** Existing vocational training programs are insufficient to meet the growing demand for skilled labor in the renewable energy sector.
  - Example: Institutes like the National Institute of Solar Energy (NISE) need to scale up their training efforts.

### WAY FORWARD:

- **The government must raise targets for renewable energy and storage systems** to go beyond 500 GW in 2030. Its share in India's power generation mix is just 13%. Renewables and storage can support peak demand, are cost-competitive, and are faster to build.
- **Steer faster deployment of diverse clean energy resources.** This requires tapping the RE potential in more States as well as faster grid connectivity and access to suitable, conflict-free land for the timely commissioning of projects.
  - In 2023 alone, China added 300 GW of solar and wind capacity, while the European Union added 73 GW. India's cumulative renewable capacity stood at 144 GW, with another 128 GW in the pipeline.
- **Implement measures to improve the availability of energy.** The low liquidity (volume being traded) in the power exchange presents price volatility risks.
  - During FY23, only 6.3% of India's power generation was procured through power exchanges, with the rest coming through bilateral agreements.
- **Ensure effective maintenance and utilisation of the coal fleet.** Even as we add more renewables, coal plays an important role. CEEW's analysis of MERIT data shows that, in FY24, more than 210 GW of coal capacity generated about 80% of the power during non-

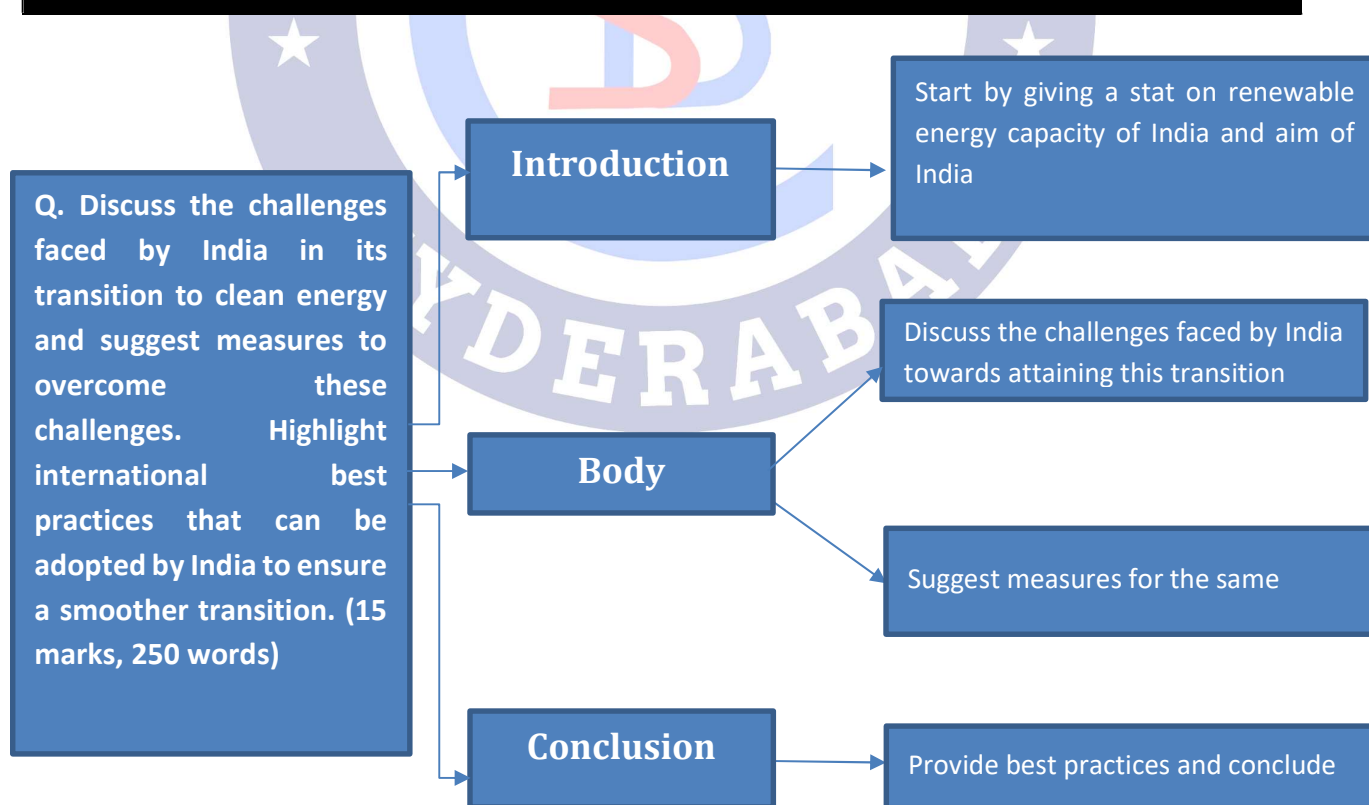
solar hours. State regulators must revise the norms to enable timely upkeep of the coal fleet and compensate for investments to make select coal plants flexible.

- **Fast-track digitalisation to empower discoms and consumers to play an active role in India's energy transition.** Smart meters would enable discoms to forecast power demand accurately, plan networks better, and integrate renewables cost-effectively. However, India's smart metering drive is far from the 250 million target. But keeping consumer privacy and system preparedness against cyberattacks at the heart of regulations and digitalisation efforts would be crucial.
  - More than 11 million smart meters have already been installed in India, with half of these in Bihar and Assam. Discoms must overcome their hesitation and take inspiration from Bihar and Assam, which are already reaping benefits like reduced losses and timely bill delivery to consumers through smart metering.

## PRACTICE QUESTION

**Q. Discuss the challenges faced by India in its transition to clean energy and suggest measures to overcome these challenges. Highlight international best practices that can be adopted by India to ensure a smoother transition. (15 marks, 250 words)**

## APPROACH



## MODEL ANSWER

Of India's energy mix, around 42% is contributed by renewable energy sources. But to achieve 500 GW from the present 191 GW by 2030 targeted by Panchamrit plan is faced by certain challenges as follows:

### CHALLENGES IN CLEAN ENERGY TRANSITION:

#### Financial Constraints:

- **Limited Access to Finance:** SMEs and individual consumers face difficulties in accessing finance for renewable energy projects. There is a financing gap of around \$450 billion for renewable energy projects in India according to the International Finance Corporation (IFC).

#### Technological Challenges:

- **Intermittency of Renewable Sources:** Solar and wind energy depend on weather conditions, leading to reliability issues. Changing weather patterns led to a 15% fall in hydropower generation in 2023.
- **Energy Storage:** Effective and affordable energy storage solutions are necessary to balance supply and demand. Implementation of large-scale battery storage systems such as Tesla's Powerwall is still nascent in India.

#### Infrastructure and Grid Integration:

- **Inadequate Grid Infrastructure:** The existing power grid is not equipped to handle the variable nature of renewable energy. Integration of renewable energy into the national grid requires significant upgrades to transmission and distribution networks.
- **Transmission Losses:** High transmission and distribution losses reduce the efficiency of energy delivery. India has one of the highest transmission and distribution losses in the world, averaging around 20%.

#### Regulatory and Policy Challenges:

- **Inconsistent Policies:** Frequent changes in policies create uncertainty for investors. Delays in disbursing subsidies for rooftop solar installations have slowed their adoption.
- **Subsidies and Incentives:** Existing subsidies for renewable energy are often insufficient or inconsistently applied.



### Land Acquisition and Environmental Concerns:

- **Land Acquisition:** Acquiring land for large-scale projects is challenging due to high population density and land ownership issues. Proposed solar park in Rajasthan faced delays due to land acquisition disputes with local communities.
- **Environmental Impact:** Large hydropower projects in the Himalayas like Joshimath Malana have faced opposition due to their potential impact on local ecosystems.

### MEASURES TO OVERCOME CHALLENGES:

1. **Financial Solutions:** Enhance access to finance for SMEs and individual consumers. Introduce innovative financial instruments like green bonds to attract investment.
2. **Technological Advancements:** Invest in research and development for improving energy storage solutions. Encourage the use of hybrid renewable energy systems to address intermittency issues.
3. **Infrastructure Development:** Upgrade the national grid to handle the integration of renewable energy. Reduce transmission and distribution losses through advanced grid management technologies.
4. **Policy and Regulatory Stability:** Ensure consistency in renewable energy policies to build investor confidence. Streamline subsidy disbursement processes to encourage adoption.
5. **Land and Environmental Management:** Develop a comprehensive land acquisition framework that addresses community concerns. Conduct thorough environmental impact assessments to mitigate negative effects.

### INTERNATIONAL BEST PRACTICES:

1. **Germany's Energiewende:** Germany's comprehensive policy framework and strong public support have made it a leader in renewable energy transition.
2. **China's Solar and Wind Expansion:** China's aggressive investment and large-scale deployment of solar and wind energy have significantly increased its renewable capacity.
3. **Denmark's Wind Energy Success:** Denmark's policies supporting wind energy development and community ownership models have driven its success in this sector.
4. **California's Energy Storage Initiatives:** California's policies promoting energy storage solutions have enhanced grid reliability and renewable energy integration.

India's clean energy transition is crucial for sustainable development and combating climate change. By addressing the challenges through targeted measures and adopting international best practices, India can achieve its renewable energy goals and ensure a resilient and sustainable energy future.



## 29. ETHANOL BLENDING

### IMPACT ANALYSIS

#### SYLLABUS:

GS 3 > Economic Development > Indian Economy and issues > Renewable energy

#### REFERENCE NEWS:

- According to a recent report by CRISIL Ratings, India's goal to achieve a **20% ethanol blend in petrol by the Ethanol Supply Year (ESY) 2025**, equivalent to about 990 crore litres annually, necessitates efficient use of both grain and sugarcane feed stocks.

#### MORE ON NEWS:

- The report forecasts a significant rise in annual ethanol production from grains, expected to increase from **380 crore litres this season to around 600 crore litres** by the next season. The remaining volume will need to come from processing sugarcane, a feasible option given the ample existing production capacity.
- As per the report, as of July, ethanol blending in petrol has **reached 15.83%**. The blending rate has been increasing by 200-300 basis points annually since ESY 2021.
- The Centre has also **targeted 5 per cent blending of biodiesel with diesel by 2030**.

#### WHAT IS ETHANOL BLENDING?

- An ethanol blend is defined as a **blended motor fuel containing ethyl alcohol that is at least 99% pure**, derived from agricultural products, and blended exclusively with petrol (gasoline).

#### ETHANOL:

- Ethanol, a **volatile, colorless liquid**, is a key biofuel produced naturally by **fermenting sugars or via petrochemical methods**.
- In India, ethanol is **primarily produced using sugarcane molasses**.
- Ethanol also produced from starches in potatoes, corn, wheat, and other plants.
- Since ethanol is produced from plants that harness the power of the sun, **ethanol is also considered as renewable fuel**.

#### BENEFITS OF ETHANOL BLENDING:

- **Energy security:**
  - Higher usage of ethanol as an automobile fuel **will help save import costs**, as India's dependence on crude oil imports has been increasing over the years.
  - In the period from April to August 2023, this **dependence rose to 87.8%, compared to 86.5%** in the same period a year earlier, according to the Ministry of Petroleum and Natural Gas.
  - It is estimated that the **E20 (80% petrol and 20% Ethanol) program can save USD 4 billion** (Rs 30,000 crore) per annum for India (source: Press Information Bureau (PIB)).
- **Cleaner Environment:**
  - One crore liter of E10 (90% petrol and 10% Ethanol) saves around 20,000 ton of CO2 emissions.
  - As the **ethanol molecule contains oxygen**, it allows the engine to more **completely combust the fuel, resulting in fewer emissions** and thereby reducing the occurrence of environmental pollution. Also, by **reducing crop burning a conversion of agricultural residues/wastes to biofuels** there will be further **reduction in Green House Gas emissions**.
- **Additional Income to Farmers:**
  - **By adopting 2G technologies, agricultural residues/waste can be converted to ethanol** and can fetch a price for Indian farmers. Also, **conversion of surplus grains and agricultural biomass** can help in price stabilization.

#### Categories of biofuels

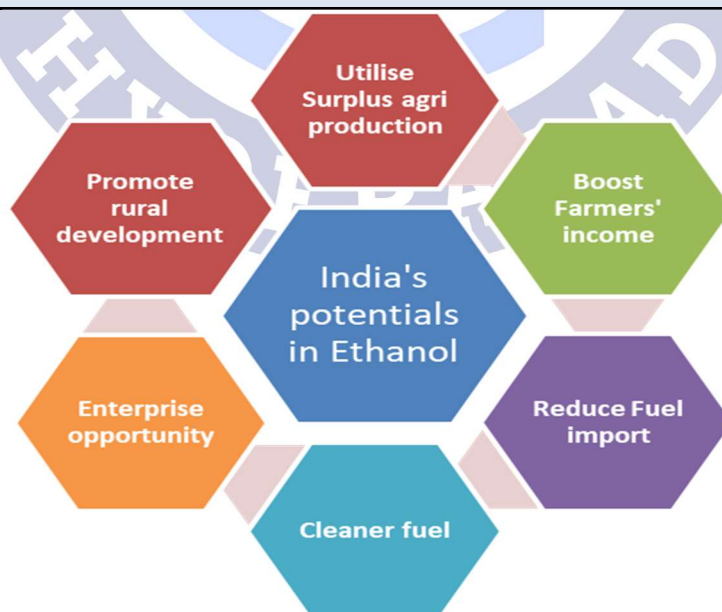
Biofuel can be categorized into different categories depending on the materials used for its production.

- **First Generation Biofuel:** Conventional biofuels, derived from **food sources** such as starch, sugar, and vegetable oil, like ethanol from sugarcane or sugar beets.
  - **Second Generation Biofuel:** Also known as "**olive green**" or "**cellulosic-ethanol**," produced from sustainable non-food materials, including waste vegetable oil and forest residues.
  - **Third Generation Biofuels:** Referred to as "**algae fuel**" or "**oilage**," sourced from algae, generating a high yield of biofuels like biodiesel, gasoline, and ethanol.
  - **Fourth Generation Biofuels:** Involves the use of **advanced biotechnology**, featuring bio-engineered trees and algae, known for carbon capture and storage capabilities, representing a significant advancement in biofuel technology.
- **Cheaper alternative:**
    - While **petrol is subject to excise duty, GST is levied on ethanol**. Hence, the usage of ethanol blended fuel will enable consumers to save Rs 30-35 per liter.

- **Investment in Rural Areas:**
  - Oil Marketing Companies are in the process of setting up 2G bio refineries across the Country. This will **spur infrastructural investment in the rural areas**.
  - For example, **Indian Oil's 2G bio-refinery in Panipat**, Haryana, uses local rice straw to produce ethanol, boosting the rural economy by creating jobs and repurposing agricultural waste.
- **Employment Generation:**
  - Ethanol production and bio refinery can contribute to jobs in Plant Operations, Village Level Entrepreneurs and Supply Chain Management.
- **Other benefits of ethanol being used as engine fuel:**
  - With a **113 octane rating**, ethanol is the **highest performance fuel** on the market and keeps today's high-compression engines running smoothly.
  - Ethanol-blended fuel keeps the fuel system clean for optimal performance because it does not leave gummy deposits. Ethanol helps **prevent wintertime problems by acting as a gas-line antifreeze**.

**FLEX FUEL VEHICLES:**

- An FFV is a **modified version of vehicles that could run both on conventional petrol and doped petrol** with different levels of ethanol blends.
- These vehicles **are a logical extension of the Ethanol Blended Petrol (EBP)** programme launched by the Union Ministry of Petroleum and Natural Gas in 2003.
- These are **currently being used successfully in Brazil**, giving people the option to switch fuel (Petrol and ethanol) depending on price and convenience.



### CHALLENGES:

- **Availability of Blended fuel:**
  - Ethanol production in India is **heavily dependent on the production of sugar and sugarcane**, which fluctuates due to the cyclic nature of the crop. Hence **sufficient quantity of ethanol is not available for blending**.
  - For instance, only around 50% of petrol sold in India is E10 blended, while remaining is unblended petrol (E0) (source: PIB).
- **Delays in getting clearance:**
  - Ethanol production **plants/distilleries fall under the “Red category”** and **require environmental clearance** under the Air and Water Acts for new and expansion projects. This often takes a **long time leading to delays**.
- **Lower efficiency:**
  - The calorific value of ethanol is low and this leads to reduction in performance.
  - Ethanol also **acts as a solvent and could affect the lubrication system in engines**, thereby increasing wear and tear.
- **Higher cost of vehicles:**
  - According to **the Society of Indian Automobile Manufacturers (SIAM)**, the cost of FFVs (four-wheelers) would be higher by Rs 17,000 to Rs 25,000 and Rs 5,000 to Rs 12,000 for two-wheelers compared to conventional petrol vehicles.
- **Customer acceptance:**
  - Flex fuel vehicles (FFV) would be more expensive than regular vehicles due to the upgradation of materials, engine parts and fuel system. Hence, customer acceptance will be a major challenge.
- **Concerns of Industry:**
  - FFVs would require **additional investment in production lines and technology transfer**. For auto industry, this will **pose another challenge** that they are already facing with the **introduction of BS VI fuel, disruptions due to pandemic and competition from electric vehicles**.
- **Changes in existing fleet of vehicles:**
  - Currently produced vehicles in India are designed optimally for E5, with rubber and plastic components compatible with E10 fuel.
  - As **E20 rolls out, vehicles need to be produced with components and elastomers compatible with E20** and engines optimally designed for use of E20 fuel.
- **Ethical concerns:**
  - Despite being an agrarian powerhouse, India has a **high incidence of poverty and malnutrition**. In this situation, **diverting food grains for ethanol production** rather than addressing issues in food distribution raises ethical concerns.

- **Water Resource Concerns:**
  - **The Energy and Resources Institute** highlighted that producing 50% of the ethanol target from sugarcane would require an additional 400 **billion litres of water**, potentially compromising water availability for food grain cultivation and threatening agricultural sustainability.

#### **GOVERNMENT INITIATIVES:**

- **National Biofuel Policy, 2018**
  - The Policy **categorizes biofuels as basic and advanced** to enable extension of appropriate financial and fiscal incentives under each category.
    - **Basic Biofuels:** First Generation (1G) bioethanol and biodiesel.
    - **Advanced Biofuels:** Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc.
  - The Policy broadens ethanol production sources to include sugarcane juice, sugar-rich materials like **sugar beet and sweet sorghum, starch-based corn and cassava, and damaged grains unfit for consumption.**
  - It permits using **surplus food grains for ethanol** production with the **National Biofuel Coordination Committee's approval.** The Policy also supports advanced biofuels with a Rs. 5000 crore viability gap funding for 2G ethanol bio-refineries.
- **Pradhan Mantri JI-VAN Yojana:**
  - The scheme aims to provide **financial support to integrated bioethanol projects** using **lignocellulosic biomass and other renewable feedstock.**
- **Modified scheme to produce 1G ethanol:**
  - It aims for **extending financial assistance for producing 1st generation (1G) ethanol** from feed stocks such as cereals (rice, wheat, barley, corn and sorghum), sugarcane and sugar beet.
- **Ethanol Blended Petrol (EBP) programme:**
  - The Ethanol Blending Programme (EBP), **launched in January 2003**, aims to mix ethanol with motor spirit to **reduce pollution, conserve foreign exchange, and support the sugar industry.** Initially limited to sugarcane-derived ethanol, the program expanded **in 2018 to include ethanol from food grains, fruits, vegetables, and other waste.**
- **Roadmap for Ethanol Blending in India by 2025:**
  - The central government has recently released an expert committee report on the Roadmap for Ethanol Blending in India by 2025.
- **GOBAR DHAN Scheme:**
  - Launched in 2018, GOBAR (Galvanizing Organic Bio-Agro Resources) Dhan scheme aims to positively **impact village cleanliness and generate wealth and energy from cattle and organic waste.** It also aims at creating new rural

**livelihood opportunities and enhancing income for farmers and other rural people.**

- **Repurpose Used Cooking Oil (RUCO):**
  - The **Food Safety and Standards Authority of India (FSSAI)** has launched this initiative that will **enable collection and conversion of used cooking oil** to biodiesel.

#### **WAY FORWARD:**

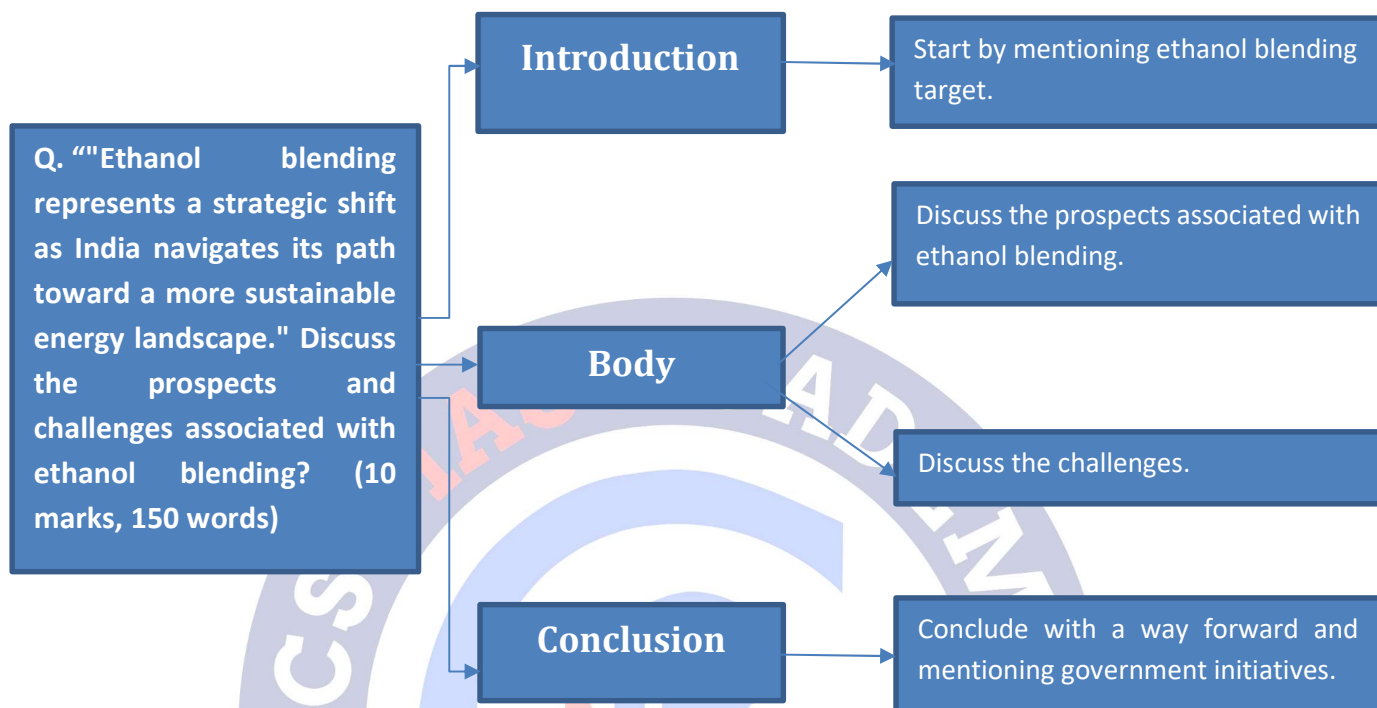
- **Ensure sustained production and availability:**
  - Sugarcane and grain-based ethanol production capacities needs to be augmented if India is to attain the desired outcomes of ethanol blending. For this, augmentation of production and storage systems, transport of ethanol from surplus to deficit states and special efforts to attract investors needs to be taken.
- **Diversification of feedstock:**
  - Sugarcane has among the highest water consumption per acre among major Indian crops. As an alternative, the production of ethanol from maize and other low-water-consuming feed stocks may be encouraged.
  - In the long term, production of ethanol from non-food feedstock (Advanced Biofuels) including second generation (2G) should be promoted so that production will sustain without causing any tradeoff with the food production system.
- **Expedite Clearances:**
  - A system for single window clearances may be formulated to accord speedy clearances for new and expansion projects for ethanol production. This should include all clearances by Central and State agencies.
- **Support for industry:**
  - Government may provide support to industry for introduction of FFVs, development of technologies and retrofitting of existing fleet through tax breaks, product linked subsidies etc.
- **Incentives for customers:**
  - For better acceptability of higher ethanol blends in the country, retail price of such fuels should be lower than normal petrol to compensate for the reduction in efficiency and incentivize switching to blended fuel.

### **PRACTICE QUESTION**

**Q. "Ethanol blending represents a strategic shift as India navigates its path toward a more sustainable energy landscape." Discuss the prospects and challenges associated with ethanol blending? (10 marks, 150 words)**



## APPROACH



## MODEL ANSWER

India has set an ambitious target to achieve a **20% ethanol blend in petrol by the Ethanol Supply Year (ESY) 2025**, which would require about **990 crore litres of ethanol annually** according to CRISIL Ratings. This initiative is part of India's broader strategy to enhance energy security, mitigate environmental impact, and promote agricultural development but faces substantial challenges.

### Prospects of Ethanol Blending:

- **Energy Security:** Ethanol blending can significantly reduce India's reliance on imported crude oil, which escalated to 87.8% in the period from April to August 2023, as reported by the Ministry of Petroleum and Natural Gas. Achieving the E20 target could potentially save India USD 4 billion (approximately Rs 30,000 crore) annually (Press Information Bureau).
- **Environmental Benefits:** Blending ethanol with petrol reduces CO<sub>2</sub> emissions, with one crore liters of E10 saving about 20,000 tons of CO<sub>2</sub>. Ethanol's inclusion in fuel promotes cleaner combustion, thereby reducing overall vehicle emissions and contributing to better air quality.

- **Economic Growth in Rural Areas:** Ethanol production from agricultural residues and surplus grains can provide additional income to farmers and stabilize crop prices. Moreover, projects like Indian Oil's 2G bio-refinery in Panipat, which utilizes local agricultural residues, catalyze rural development and generate employment.
- **Improved Vehicle Performance:** Ethanol's high octane rating enhances engine performance and reduces maintenance costs by keeping the fuel system clean and acting as a gas-line antifreeze during colder months.
- **Job Creation:** The development of bio-refineries and ethanol production plants generates employment opportunities in plant operations, supply chain management, and as village-level entrepreneurs.

#### Challenges Associated with Ethanol Blending:

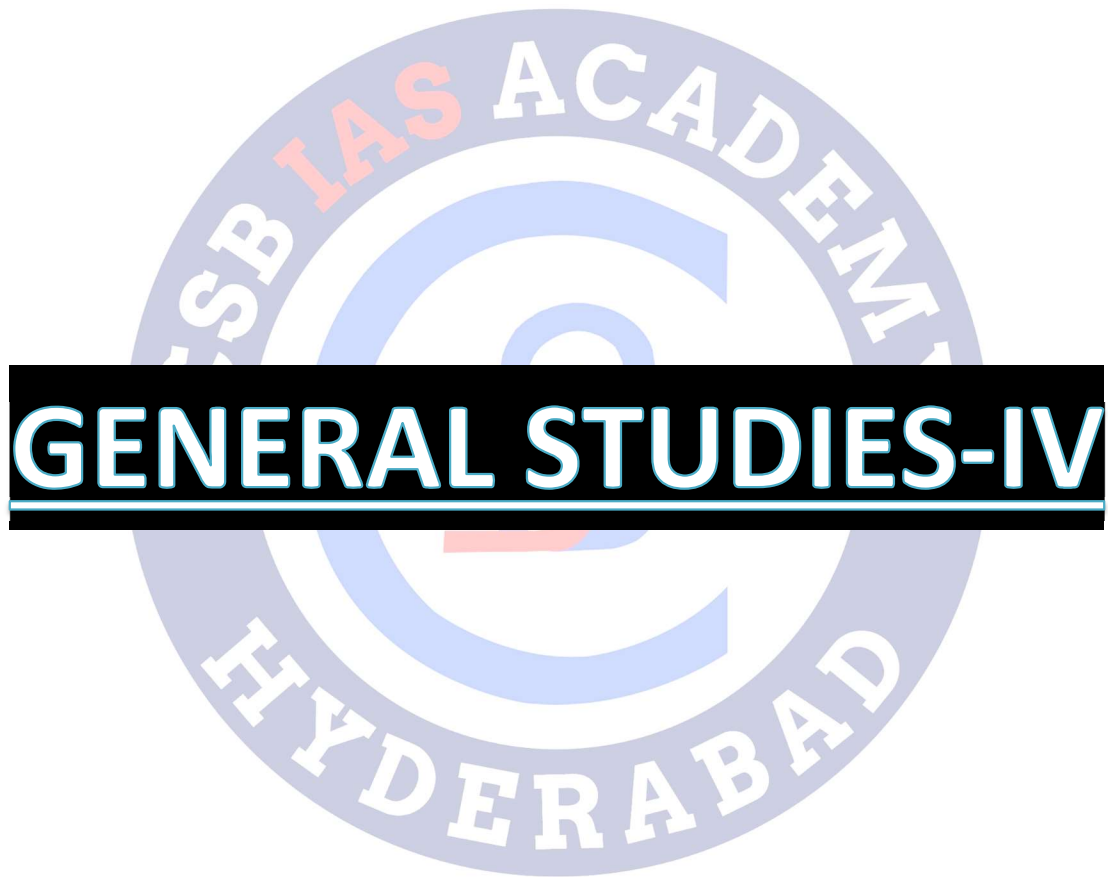
- **Supply Inconsistency:** Ethanol availability in India heavily depends on sugarcane and grain outputs, which are subject to annual fluctuations, thereby affecting the stability of ethanol supply for blending.
- **Increased Production Costs:** As noted by the Society of Indian Automobile Manufacturers, the manufacturing costs for FFVs are higher than conventional vehicles, ranging from Rs 17,000 to Rs 25,000 for four-wheelers, which could hinder widespread adoption.
- **Water Usage Concerns:** Producing the targeted ethanol volume predominantly from sugarcane could significantly increase water consumption, potentially compromising water availability for other agricultural needs, as highlighted by The Energy and Resources Institute.
- **Ethical and Food Security Issues:** The diversion of food grains and agricultural resources towards ethanol production raises concerns about food security and nutritional adequacy in regions already facing poverty and malnutrition.
- **Regulatory and Environmental Clearances:** Ethanol production plants require environmental clearances under the Air and Water Acts, which can be time-consuming and delay project execution.

#### Way Forward

- **Diversify Feedstocks:** Encourage the use of less water-intensive crops and waste materials for ethanol production to reduce environmental impact.
- **Infrastructure Enhancements:** Invest in better storage and transportation facilities to ensure consistent ethanol supply across states.
- **Policy Incentives:** Strengthen financial and policy support for ethanol producers and consumers to foster broader acceptance and utilization.
- **Technology Investments:** Promote technological advancements for efficient ethanol production from diverse biomass sources.

To reach the ESY 2025 ethanol blending goals, robust government support is essential. The **National Biofuel Policy 2018, Pradhan Mantri JI-VAN Yojana, GOBAR-DHAN Scheme, and the Repurpose Used Cooking Oil (RUCO)** initiative are key programs fostering biofuel use and promoting sustainability. Enhancing these initiatives with targeted subsidies and tax incentives will be crucial for overcoming ethanol blending challenges and securing India's energy future.





## 30. ETHICAL CONCERNS OF ORGAN DONATION & TRANSPLANTATION

### IMPACT ANALYSIS

#### SYLLABUS:

GS 4> Ethics

#### REFERENCE NEWS:

- The recently released report by the National Organ and Tissue Transplant Organisation (NOTTO) revealed that in 2023, India saw its highest-ever annual total of organ transplants, with 18,378 procedures.
- Of these, **10% were performed on foreign nationals** who travelled to India for medical treatment. Remarkably, the data also shows that **women constituted more than 60% of all living organ donors** during the year.
- These findings raise ethical concerns, especially amid **allegations of irregularities** in the transplant approval process for **foreign nationals** and reports suggesting **unethical organ trade practices** in the country.

#### ORGAN DONATION & TRANSPLANTATION:

- Organ donation is the process of **surgically removing an organ or tissue from one person** (the organ donor) and **placing it into another person** (the recipient).
- Transplantation is necessary because the **recipient's organ has failed or has been damaged by disease or injury**.
- Organ transplantation has been part of medical technology for over forty years, **beginning in the 1950s** with the **first consistent successes in kidney transplantation**.
- Organ donation and transplantation undoubtedly **save lives or improve the quality of life for patients** with end-stage organ failure, but they also **raise several ethical issues and concerns**.

For extra reading on organ donation and transplantation framework in India:  
<https://ilearncana.com/details/Organ-donation-and-transplantation-in-India/4135>

#### ETHICAL CONCERNS/ISSUES ASSOCIATED WITH ORGAN DONATION AND TRANSPLANTATION

Ethical Issues Associated with the Donor:

- **Consent:** One of the most crucial ethical issues is ensuring that donors have actively consented to the donation. This is particularly complex with deceased donors, minors, and legally incompetent individuals where others must make decisions on their behalf.
- **Health and Integrity:** It is vital that the removal of tissues or organs does not impair the donor's health or functional integrity, aligning with the ethical principle that interventions should not harm the donor.
- **Altruism and Coercion:** Donations must be altruistic, free from coercion, or external pressures, emphasizing the voluntary nature of organ donation.
- **Informed Consent:** Donors need to be fully informed about the nature of the procedure and its potential complications, ensuring transparency and understanding of the risks and follow-up requirements.
- **Family Involvement:** The views of close relatives should be considered in the decision-making process, especially in situations involving incapacitated or deceased donors.
- **Commercialization and Exploitation:** Stringent measures are necessary to prevent any commercialization or exploitation in the donation process, maintaining the integrity and ethical standards of organ donation.

#### **Medical Integrity and Ethics:**

- Maintaining trust in medical professionals is crucial; they must not compromise the interests of their patients. Incidents like the one in **Kerala, where doctors allegedly declared a donor brain-dead against norms**, highlight the need for strict adherence to medical ethics.

#### **Ethical Issues Associated with the Recipient:**

- There are significant ethical dilemmas regarding whether organs should be allocated to individuals who may have contributed to their organ failure through lifestyle choices such as smoking, drinking, or poor diet, versus those whose conditions are not self-induced.

#### **Ethical Issues Associated with the Allocation of Limited Resources:**

- **Fair Access:** The scarcity of available organs presents challenges in ensuring equal access and fair distribution. Without adequate regulation, there is a potential for **exploitation by wealthier individuals**, compromising the equity of the system.
- **Black Market Concerns:** The shortage of organs has fueled a black market, leading to severe ethical violations such as **kidnapping and human trafficking** for transplantation, often exploiting vulnerable populations.

### Religious and Moral Questions:

- Organ transplantation can raise complex religious and moral questions, including concerns about how organ removal might affect beliefs in rebirth or resurrection, challenging cultural norms and ethical considerations.

### Gender Disparity in Organ Donation and Transplantation:

- Recent data from the National Organ and Tissue Transplant Organisation (NOTTO) shows that while **women constitute over 60% of all living organ donors** in the last year(2023), they **only accounted for 30% of the recipients**.
- This significant gender disparity raises ethical questions in a **patriarchal society** like India, where **societal pressures** could **compromise women's autonomy and consent**. The mismatch between the high proportion of female donors and the lower proportion of female recipients points to potential biases in the allocation process and raises concerns about **equitable access** to transplant resources for women.

### ETHICAL FRAMEWORKS AND SOLUTIONS:

- **Principles of biomedical ethics:**
  - The framework for organ donation and transplantation must follow four principles of biomedical ethics, which are **autonomy, non-maleficence, beneficence, and justice**.
  - **Autonomy:**
    - This principle emphasizes the importance of **informed and voluntary decisions** in organ donation. Policies should enforce clear, understandable consent processes that allow donors to freely make and withdraw their decisions, respecting their autonomy.
  - **Beneficence:**
    - Beneficence focuses on **maximizing the benefits for recipients** while **protecting the well-being of donors**. Medical professionals should ensure that transplant procedures have high success potential and provide comprehensive care to minimize risks to donors.
  - **Non-maleficence:**
    - Non-maleficence involves **avoiding harm to donors**. It mandates stringent medical protocols to minimize risks and requires strict regulatory compliance to protect donors from adverse health outcomes.
  - **Justice:**
    - Justice demands **fair and equitable access** to transplant resources. Policies should promote transparent organ allocation criteria and

include **regular audits** to ensure **fairness and impartiality** in the treatment of all patients.



- **Awareness generation:**
  - Awareness generation about organ donation and transplantation among the public **could be helpful to avoid exploitation of the poor and check unethical practises.**
  - Superstitions among people should be fought by way of religious injunctions. For instance, **Hindu and Vedic scholars accept the concept of brain death.** The concept of giving, or daan, is ingrained in Hindu thought.
- **Need for government regulations:**
  - The government should create the necessary legislation and regulations for an efficient, **transparent, and ethically sound organ donation and allocation system** in the country that ensures **upholding ethical principles**, protecting the rights of donors and recipients, and maintaining public trust.
- **WHO Guiding Principles:**
  - Following the **WHO Guiding Principles on Human Cell, Tissue, and Organ Transplantation** would provide an **orderly, ethical, and acceptable**



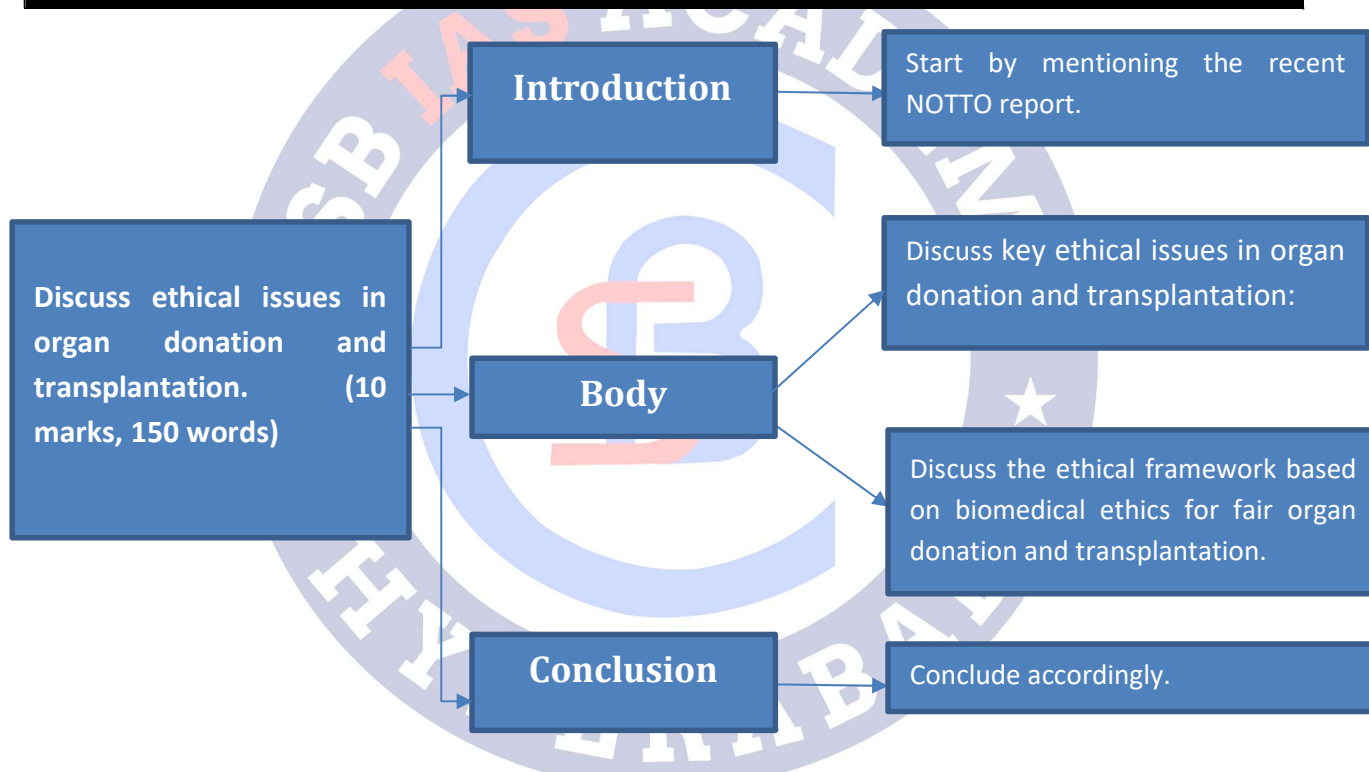
**framework** for the acquisition and transplantation of human cells, tissues, and organs for therapeutic purposes.

- **Incentives to the donors:**
  - The government could consider giving incentives to the donors, which could be in the form of **health insurance for the donor and his family**. The practise has been adopted in several countries.

## PRACTICE QUESTION

Q. Discuss ethical issues in organ donation and transplantation. (10 marks, 150 words)

## APPROACH



## MODEL ANSWER

In 2023, the National Organ and Tissue Transplant Organisation (NOTTO) recorded an unprecedented total of 18,378 organ transplants in India, the highest in any single year. Notably, 10% of these procedures were performed on foreign nationals, and women represented over 60% of all living organ donors. Such data not only reflects the operational scale of India's transplant activities but also brings to light deep-seated ethical concerns that must be urgently addressed.

## Key Ethical Issues in Organ Donation and Transplantation:

- **Ethical Issues Associated with the Donor:**
  - **Consent Complexity:** Ensuring donors give informed and voluntary consent, particularly challenging for deceased donors, minors, and legally incompetent individuals.
  - **Health and Integrity:** It is crucial that organ donation does not compromise the donor's health or functional integrity.
  - **Altruism vs. Coercion:** The need for donations to be altruistic and free from any coercion or external pressures.
  - **Informed Consent:** Donors should be comprehensively informed about the procedure and potential risks to ensure transparency.
  - **Commercialization and Exploitation:** Implementing strict regulations to prevent commercialization and exploitation in the donation process.
- **Medical Integrity and Ethics:** Maintaining ethical medical practices is essential, highlighted by incidents such as in Kerala, where doctors allegedly **violated norms** by wrongly declaring a donor brain-dead.
- **Ethical Dilemma Associated with the Recipient:** Ethical dilemma associated with organ allocation to individuals whose lifestyle choices contributed to their organ failure versus those with non-self-induced conditions.
- **Allocation of Limited Resources:**
  - **Fair Access:** Addressing the challenges of fair distribution in the face of organ scarcity, and preventing exploitation by wealthier individuals.
  - **Black Market Risks:** Tackling the ethical violations and exploitation stemming from a black market in organ trading.
- **Religious and Moral Considerations:** Organ transplantation raises significant religious and moral concerns, such as the impact on beliefs in rebirth or resurrection.
- **Gender Disparity Concerns:** With women making up **over 60% of donors but only 30% of recipients in 2023(Source: NOTTO)**, there are serious concerns about biases in the allocation process and the potential societal pressure impacting women's autonomy and consent in India's patriarchal society.

The ethical framework for organ donation in India should firmly adhere to **four pivotal principles of biomedical ethics:**

1. **Autonomy:** Enhancing consent processes to ensure they are transparent and understandable, respecting the donor's rights to make informed decisions.

2. **Beneficence:** Maximizing the potential benefits for recipients while safeguarding the well-being of the donors through meticulous medical procedures.
3. **Non-maleficence:** Implementing strict medical protocols to minimize risks and protect donors from adverse health outcomes.
4. **Justice:** Ensuring fair and equitable access to transplant resources for all patients, regardless of gender, nationality, or socioeconomic status.

(The diagram in the article can be included.)

Enhancing public awareness with the support of respected religious figures is essential to uphold the ethical principles of autonomy and justice in India's organ donation system. Implementing strict government legislation aligned with WHO Guiding Principles and incentivizing donations through health insurance will ensure beneficence and non-maleficence, thereby strengthening public trust and ethical standards in the system.



**NOTES**



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