

Weekly-Current-Affairs-16-22-sep-2024

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India Launches PM E-Drive Scheme for Electric Vehicles

RECENT CONTEXT:

The Indian government has introduced a new plan called the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-Drive) scheme. It replaces the previous FAME II program, which ended in March 2024. The main goal of the PM E-Drive scheme is to promote the use of electric vehicles (EVs) across the country. Although the new scheme has a smaller budget compared to the old one, it still focuses on making EVs more common in India.

BACKGROUND: THE TRANSITION FROM FAME II

The Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) II program, launched in 2019, was a cornerstone of India's strategy to promote electric mobility. Over its lifespan, FAME II provided substantial subsidies for electric vehicles, supported the establishment of charging infrastructure, and encouraged the development of EV technology.

However, as the program concluded in March 2024, it became clear that a new, refreshed approach was necessary to continue and enhance the momentum achieved. The FAME II program's budget, which was significant, had led to substantial progress but also highlighted areas needing further improvement and innovation. This led to the introduction of the PM E-Drive scheme, which aims to address these gaps while adapting to the evolving landscape of electric mobility.

KEY OBJECTIVES OF THE PM E-DRIVE SCHEME

1. Promoting Electric Vehicle Adoption

- **Incentives for Purchasers:** The PM E-Drive scheme offers targeted financial incentives for both individual buyers and fleet operators. These incentives include direct subsidies on the purchase of

electric vehicles and reduced taxes.

- **Price Reductions:** The scheme aims to reduce the effective price of electric vehicles, making them more competitive with traditional internal combustion engine vehicles.

2. Supporting EV Infrastructure

- **Charging Stations:** The scheme provides funding for the installation of public and private EV charging stations. This includes both standard and fast-charging facilities, ensuring that EV users have reliable access to charging points.
- **Battery Swapping Stations:** To reduce downtime associated with charging, the scheme promotes the development of battery swapping stations, particularly for two-wheelers and commercial vehicles.

3. Enhancing Domestic Manufacturing

- **Incentives for Manufacturers:** The scheme includes financial incentives for manufacturers to set up or expand their production facilities in India. This includes subsidies for research and development, as well as grants for establishing new factories.
- **Skill Development:** Recognizing the need for a skilled workforce, the scheme allocates funds for training programs aimed at developing expertise in EV manufacturing and maintenance.

4. Promoting Innovation

- **Research and Development Grants:** The scheme provides grants for research into new technologies, including advanced battery systems, energy-efficient drivetrains, and smart charging solutions.
- **Collaborations:** The scheme encourages partnerships between Indian and international research institutions to foster knowledge exchange and technological advancement.

BUDGET AND FINANCIAL IMPLICATIONS

1. While the PM E-Drive scheme has a smaller budget compared to the FAME II program, it has been strategically designed to maximize impact:

- **Focused Allocation:** The budget is allocated with a focus on high-impact areas, such as infrastructure development and incentives for low-income households and small businesses.
- **Public-Private Partnerships:** To supplement government funding, the scheme encourages public-private partnerships. This approach aims to leverage additional investments from the private sector to enhance the reach and effectiveness of the program.

EXPECTED OUTCOMES AND BENEFITS

1. Environmental Impact

- **Lower Emissions:** By increasing the number of electric vehicles on the road, the scheme aims to decrease emissions from the transportation sector, which is a significant contributor to urban air pollution.
- **Energy Efficiency:** Electric vehicles are generally more energy-efficient than conventional vehicles, which can lead to a reduction in overall energy consumption and reliance on fossil fuels.

2. Economic Growth

- **Job Creation:** The expansion of EV manufacturing and infrastructure will create new job opportunities across multiple sectors, from manufacturing to services.
- **Investment Opportunities:** The focus on domestic manufacturing and innovation is likely to attract investment from both domestic and international companies, boosting the overall economic landscape.

3. Technological Advancement

- **Enhanced Technologies:** Innovations in battery technology, energy storage, and

charging infrastructure will likely emerge, positioning India as a leader in the global EV market.

- **Global Competitiveness:** By fostering a competitive domestic EV industry, India can enhance its position in the global market and attract international collaborations.

4. Public Health

- **Reduced Health Risks:** Lower levels of air pollution can lead to a decrease in respiratory and cardiovascular diseases, contributing to overall better health outcomes.

CHALLENGES AND CONSIDERATIONS

1. Infrastructure Development

- **Deployment Speed:** Rapid deployment of charging and battery swapping stations is essential to avoid range anxiety and ensure that EV owners have convenient access to charging facilities.
- **Maintenance and Reliability:** Ensuring the reliability and maintenance of the infrastructure is crucial for sustaining consumer confidence in EVs.

2. Affordability and Accessibility

- **Cost Barrier:** The higher upfront cost of EVs compared to traditional vehicles can still be a barrier for many potential buyers. The effectiveness of subsidies and financial incentives will be key to overcoming this challenge.
- **Accessibility:** Ensuring that the benefits of the scheme reach various segments of the population, including low-income groups and rural areas, is important for achieving widespread adoption.

3. Technological Reliability

- **Quality Assurance:** Continuous improvement in battery life, charging efficiency, and vehicle performance is necessary to meet consumer expectations and industry standards.

4. Policy Stability

- **Long-Term Commitment:** A stable and long-term commitment to the scheme's objectives is crucial for building trust and encouraging investment from both consumers and manufacturers.

CONCLUSION

The launch of the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-Drive) scheme represents a significant step forward in India's journey towards sustainable transportation. By focusing on increasing the adoption of electric vehicles, expanding infrastructure, supporting domestic manufacturing, and promoting innovation, the scheme aims to address key challenges and drive the country's transition to a greener future.

While the scheme's budget is smaller compared to its predecessor, its strategic focus on high-impact areas and its emphasis on public-private partnerships are designed to maximize its effectiveness. As India embarks on this new phase of its electric mobility journey, the success of the PM E-Drive scheme will depend on effective implementation, stakeholder collaboration, and continued innovation.



PRELIM QUESTION:

- Q. What is the main objective of the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-Drive) scheme launched by the Indian government?

- A. To promote the use of hybrid vehicles
- B. To support the development of conventional fuel infrastructure
- C. To increase the adoption of electric vehicles and improve EV infrastructure
- D. To reduce the number of electric vehicles on the road

Answer: C

MAINS QUESTION:

- Q. Analyze the objectives and expected impact of the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-Drive) scheme on India's electric vehicle sector. Evaluate the potential challenges that could affect its successful implementation and suggest measures to address these challenges. (200 words)

The Rise of the East: BRICS as a Emerging Global Order and India's Pivotal Role

WHY IN THE NEWS?

An Indian delegation under the chairmanship of the Secretary of the Ministry of Culture attended the 9th BRICS Culture Ministers' Meeting in St. Petersburg, Russia.



INTRODUCTION TO BRICS



ORIGINS AND FORMATION:

2001: The term BRIC was coined in 2001 by Goldman Sachs to forecast global economic trends.

2006: The BRIC forum was formally established with a Foreign Ministers' meeting in 2006.

2009: The first summit was held in Yekaterinburg, Russia, in 2009.

2010: South Africa joined in December 2010, leading to the formation of BRICS.

2024: *BRICS PLUS:* The expansion of BRICS, incorporating Iran, Egypt, Ethiopia, Saudi Arabia, and the UAE from January 2024 is called the BRICS+.

Key Institutions and Initiatives: New Development Bank (NDB) 2014, Contingent Reserve Arrangement (CRA), BRICS Business Council, BRICS Think Tanks Council.



SIGNIFICANCE OF THE BRICS

1. Integration of New Members: The addition of new members from across the continents represents the BRICS support for enhancing the group's diversity and influence.

2. Support for Multilateralism: Emphasizing a commitment to multilateralism and the UN Charter, BRICS underlines the central role of the United Nations in maintaining peace, advancing development, and promoting democracy and human rights.

3. Global Governance Reform: BRICS advocates for a more agile and representative international system that includes developing and least-developed countries, particularly from Africa, in global decision-making processes.

4. Economic importance: BRICS countries represent 26% of the global landmass and 42% of the global population which makes the BRICS far larger than the other groupings.

5. Multilateral Trading System: BRICS supports a fair, rules-based multilateral trading system with the WTO at its core, emphasizing the need for WTO reform.

6. Climate change fight: The group supports balanced energy transitions, utilizing all energy sources—including renewables, fossil fuels, and nuclear energy—to ensure resilient and sustainable energy systems.

7. Global Financial Architecture Reform: BRICS calls for reform of global financial institutions to enhance the voice and representation of developing countries. The NDB is mainly for this purpose.

8. Conflict Resolution: one of the significance is to reduce the tensions and bilateral issues among the members of The BRICS and call for the resolution of the international conflict.

SIGNIFICANCE OF THE BRICS FOR INDIA:

1. Economic Significance: The BRICS offers India a good opportunity to enhance its trade relations, and increase FDI flow in India.

2. Infrastructure and social development: The NDB

provides India with financial resources for infrastructure projects, sustainable development, and other critical investments. This bank supports India's economic development goals and infrastructure needs.

3. Cultural and Creative Industries in BRICS: India's advocacy for including cultural and creative industries in BRICS's agenda highlights the broader trend of recognizing culture as a driver of economic development.

4. Shaping the Global Development Agenda: In the past, India has used this platform for shaping the global Agenda.

5. Strengthening Multilateralism: India is an advocate of strengthening the UN and other multilateral bodies. This platform provides the voice for India to reform and strengthen the multilateral institutions.

6. Strategic Partnerships: BRICS helps India to build strategic partnerships with major global players, enhancing its influence in global affairs. Especially Russia.

7. Regional power: BRICS offers India an advantage to deal with issues such as terrorism and regional security etc. BRICS countries collaborated to provide the COVID-19 vaccine to developing and African countries.

8: Strategic autonomy: India is a member of the Quad and BRICS, both these groups are symbols of India's strategic autonomy which helps India to protect its national interest.

CHALLENGES FOR BRICS:

1. Aligning Diverse Interests: One of the primary challenges for BRICS is aligning the diverse interests of its members. China is more focused on economic integration, Russia is on the expansion of its defense exports, etc.

2. Managing Regional Rivalries: The inclusion of both Saudi Arabia and Iran in recent expansion, with their historical rivalries, could pose challenges to internal cohesion and decision-making within BRICS.

3. Overlap with Other Groupings: Managing man-

dates with other groupings like IBSA and SCO is also a challenge for the BRICS countries.

4. Leadership Contest: The expansion of BRICS has intensified the competition between China and India for leadership within the group and the Global South.

5. Domestic issues: The domestic political structure of the BRICS and BRICS countries is one of the challenges highlighted by the C Raja Mohan.

6. Limited economic cooperation: The trade between BRICS nations is unequal. India has a trade deficit with China, Russia and India have limited economic cooperation.

7. Regional issues: There are different perspectives of the BRICS countries on many regional issues such as China is actively engaging with the Taliban, unlike other BRICS countries.

WAYS TO UTILIZE THE BRICS POTENTIAL:

1. Balancing the national interest: The diverse interests can be managed by the effective dialogue in the BRICS, Use this platform for the resolution of bilateral issues.

2. Enhancing economic cooperation: the exploration of the untapped potential between the BRICS countries can make a very large market. For example, India, and Russia.

3. Role of The NDB: The NDB can finance more projects in Africa and newly added members to make other developing countries join this organization.

4. Cooperation in technical and functional areas: The areas like health education and innovation, most of the BRICS countries can collaborate on this front. India opening an education centre in the UAE is the best move in this direction.

5. Respecting mutual concerns: countries should respect each other's sovereignty and mutual interest, specifically bordering countries.

6. Cooperation in climate change and other global issues: the group becomes more effective when it raises the same voice for any issues. The BRICS countries can collaborate on issues like climate

change and the transition to renewable energy.

7. Cultural Diplomacy: Promote cultural exchanges to build mutual understanding and respect among BRICS nations, thereby enhancing people-to-people connections and shared values.

8. Collaborative Security Frameworks: Develop cooperative security measures and intelligence-sharing frameworks to effectively address common security threats and challenges within the BRICS region.

9. Joint Counterterrorism Initiatives: Work together on counterterrorism and cybersecurity efforts to safeguard national and regional security interests from evolving threats.

CONCLUSION:

BRICS, initially focused on economic collaboration, has evolved to address a wide range of global issues through various summits and practical cooperation. The recent cultural summit and the addition of new members will boost the significance of the BRICS group. The role of India in adding new members once again highlights India's active engagement in the group. The need to address mutual concerns, respect mutual interests, and work together for global challenges would help the group to stand as a complementary system of global governance.

PRELIMS QUESTION:

Q. Contingent Reserve Arrangement (CRA), recently often seen in the news in the context of which of the following:

- A. BRICS
- B. WEF
- C. IMF
- D. World Bank

ANSWER: A

MAINS QUESTION:

Discuss the Recent Expansion of BRICS to BRICS Plus and Highlight the Rise of BRICS as an Alternative Global Political Order. How Can India Play a Significant Role in This Emerging Global Order?

(250 words 15 marks)

PRELIMS BITS: BHASKAR PLATFORM and DPIIT

RECENT CONTEXT:

DPIIT to launch BHASKAR: A Revolutionary Platform for India's Startup Ecosystem

KEY FACTS ABOUT BHASKAR

- **Initiative:** The Department for Promotion of Industry and Internal Trade (DPIIT) is launching BHASKAR, a digital platform under the Startup India program.
- **Objective:** BHASKAR aims to centralize, streamline, and enhance collaboration among stakeholders in India's startup ecosystem, including startups, investors, mentors, service providers, and government bodies.
- **Vision:** The platform aligns with the Government of India's goal to transform India into a global leader in innovation and entrepreneurship.



PLATFORM FEATURES:

- **Networking and Collaboration:** Facilitates interaction between various stakeholders.
- **Centralized Resource Access:** Provides startups with immediate access to critical tools and knowledge.
- **Personalized Identification:** Issues unique BHASKAR IDs to each stakeholder for tailored interactions.
- **Enhanced Discoverability:** Offers powerful search features to locate resources, collaborators, and opportunities.
- **Global Branding:** Promotes India's reputation as a hub for innovation and facilitates cross-border collaborations.
- **Impact:** BHASKAR is expected to be a central hub for collaboration, idea exchange, and growth, helping to unlock the full potential of India's startup ecosystem.
- **Launch:** The platform is set to be launched on September 16, 2024.
- **Significance:** BHASKAR will drive India's emergence as a global leader in entrepreneurship by fostering a connected, efficient, and collaborative environment.

Department for Promotion of Industry and Internal Trade (DPIIT)

1. Establishment and Renaming

Founded: 1995

Reconstituted: 2000, with the merger of the Department of Industrial Development

Formerly Known As the Department of Industrial Policy & Promotion

Current Name: Renamed as DPIIT in January 2019

2. Expanded Responsibilities

E-commerce: Responsibilities transferred in 2018

Internal Trade: Includes welfare of traders and employees (from 2019)

Startups: Added to DPIIT's portfolio (from 2019)

Logistics Sector: Integrated development responsibility (from November 2021)

3. Core Role

Promote Industrial Development: Facilitate investment in new technologies, accelerate foreign direct investment (FDI), and support balanced industry and trade development

4. Major duties:

1. General Industrial Policy

2. Productivity in Industry

3. E-Commerce Matters

4. Promotion of Internal Trade

5. Welfare of Traders and Employees

6. Facilitating Ease of Doing Business

7. Start-Ups

8. Integrated Development of Logistics Sector

9. Monitoring Project Implementation

10. PM Gati Shakti National Master Plan

5. Intellectual Property Rights (IPR)

Administration: Handles protection and administration of IPRs

6. Foreign Direct Investment (FDI)

Promotion: Facilitates direct foreign and non-resident investments

Special Economic Zones: Includes investments by Overseas Indians

7. Industry Development

Focus Areas: Includes sectors such as cables, light engineering products, light industries, electrical engineering products, and various other industries not covered by other ministries

8. Legislations Administered

1. Industries (Development and Regulation) Act, 1951

2. Explosives Act, 1884

3. Inflammable Substances Act, 1952
4. Boilers Act, 1923
5. Patents Act, 1970
6. Copyright Act, 1957
7. Trade Marks Act, 1999
8. Design Act, 2000
9. National Institute of Design Act, 2014
10. Geographical Indications of Goods (Registration and Protection) Act, 1999
11. Semiconductor Integrated Circuits Layout-Design Act, 2000

PRELIMS QUESTION:

Q.With reference to the Department for the Promotion of Industry and Internal Trade (DPIIT), Consider the following statement:

1. The DPIIT is an administrative department under the Ministry of Finance.
2. The major function of the DPIIT is to promote the start-up culture in India.
3. The DPIIT also administers the Geographical Induction of Goods (Registration And Protection) Act 1999.
4. Recently DPIIT launched the BHASKAR platform for the easy approval of the FDI.

How many of the above-given statements are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

The GST Council has formed a GoM to review the tax rate on health and life insurance

RECENT CONTEXT:

On September 15, 2024, the GST Council made a pivotal decision to form a Group of Ministers (GoM) tasked with reviewing the Goods and Services Tax (GST) rates on health and life insurance. This development has sparked significant discussion among stakeholders and policymakers, highlighting the growing need to address the challenges faced by the insurance sector and its impact on consumers. This article explores the context of this decision, the objectives of the GoM review, the current GST framework for insurance, and the potential implications of changes in tax rates.

CONTEXT OF THE DECISION

The decision to form a GoM comes at a crucial juncture for India's insurance sector. Over the years, both health and life insurance have become essential components of financial planning and risk management for millions of Indians. However, the high GST rates on these services have been a contentious issue, with critics arguing that they contribute to the rising cost of premiums and limit access to insurance coverage.

In recent months, several reports and surveys have highlighted the growing dissatisfaction among consumers and industry players regarding the current GST structure. The insurance sector has been particularly vocal about the need for a reassessment of tax rates, citing the challenges posed by high GST on health insurance and the relatively lower rates for life insurance. This review is expected to address these concerns and potentially lead to adjustments in tax policy that could impact both consumers and the industry.

OBJECTIVES OF THE GOM REVIEW

1. **Assessing Affordability:** One of the main goals is to evaluate the impact of GST rates on the affordability of health and life insurance. With health insurance premiums subject to an 18%

GST rate and life insurance at 12%, the review aims to determine whether these rates are hindering access to insurance and whether a reduction could make coverage more affordable for consumers.

2. **Addressing Industry Concerns:** The insurance industry has expressed concerns about the high GST rates, particularly for health insurance. The GoM will consider these concerns and assess how current rates affect the financial stability and operational efficiency of insurance companies.
3. **Revenue Considerations:** Any proposed changes to GST rates must balance the need to make insurance more affordable with the need to maintain adequate revenue for the central and state governments. The GoM will need to evaluate the potential revenue implications of adjusting GST rates and explore ways to mitigate any shortfall.
4. **Consumer Protection:** Ensuring that consumers receive value for money is a key consideration. The GoM will assess how changes in GST rates could impact consumer protection and the overall affordability of insurance products.

CURRENT GST FRAMEWORK FOR INSURANCE

1. **Health Insurance:** Health insurance premiums are taxed at 18%. This rate has been criticized for being high, considering the essential nature of health coverage and the rising costs of healthcare. High GST rates contribute to increased premium costs, which can be a barrier for many individuals seeking health insurance.
2. **Life Insurance:** Life insurance premiums are taxed at a lower rate of 12%. While this rate is lower than that for health insurance, it has also faced criticism. The life insurance sector argues that even this lower rate does not adequately support the sector's sustainability and growth.

The GST rates were implemented as part of a broader tax reform aimed at simplifying the tax structure and increasing revenue. However, the effectiveness of these rates in achieving their intended objectives has been questioned, leading to the current review.

POTENTIAL IMPLICATIONS OF RATE CHANGES

1. Impact on Consumers

i).Affordability: Reducing GST rates on health and life insurance could lead to lower premiums, making insurance more affordable for a larger segment of the population. This is particularly important for health insurance, where high premiums can deter individuals from purchasing coverage.

ii).Increased Coverage: Lower premiums may encourage more people to obtain insurance coverage, potentially leading to higher penetration rates. This could have positive implications for public health and financial security.

iii).Consumer Behavior: Changes in GST rates could influence consumer behavior, with potential shifts in the types of insurance products purchased and the frequency of policy renewals.

2. Impact on Insurance Companies

i).Financial Stability: For insurance companies, particularly those operating in the health sector, a reduction in GST rates could improve financial stability. Lower tax rates may reduce operational costs and allow companies to offer more competitive premiums.

ii).Market Dynamics: Adjustments in GST rates could affect market dynamics, including pricing strategies and competition among insurers. Companies may need to adapt their strategies to align with new tax policies.

iii).Operational Adjustments: Insurance companies will need to manage the operational aspects of implementing new GST rates, including updating systems and processes to reflect changes in tax rates.

3. Impact on Government Revenue

i).Revenue Impact: Reducing GST rates could result in decreased revenue for both central and state governments. The GoM must assess the potential revenue shortfall and explore

alternative sources or compensatory measures to address the gap.

ii).Fiscal Balance: Maintaining fiscal balance is crucial. The government must ensure that any changes in GST rates do not adversely affect its ability to fund essential services and programs.

FACTORS FOR THE GOM TO CONSIDER

1. Stakeholder Consultation

i). Insurance Companies: Input from insurers will provide insights into the financial impact of GST rates and operational challenges.

ii).Consumer Groups: Feedback from consumer advocacy groups will help understand the implications of tax rates on affordability and access.

iii).Industry Experts: Experts can provide a broader perspective on the impact of GST rates on the insurance market and the economy.

2. Economic Impact Analysis

i).Effect on Premiums: How different GST rates would affect insurance premiums and overall affordability.

ii).Market Reactions: Potential changes in consumer behavior and market dynamics in response to revised GST rates.

iii).Revenue Implications: The financial impact on government revenue and potential compensatory measures.

3. Implementation and Compliance

i).Administrative Changes: Updating tax rules and ensuring compliance with new rates.

ii).Transition Period: A phased approach may be necessary to manage the transition and minimize disruption.

4. Long-Term Sustainability

i).Sector Stability: Ensuring that changes support the financial stability of the insurance sector.

ii).Consumer Protection: Maintaining protections for consumers while ensuring affordability.

CURRENT NEWS AND DEVELOPMENTS

1. Industry Reactions

In recent weeks, insurance companies have intensified their calls for a review of GST rates. Industry leaders have argued that the high GST on health insurance is a significant barrier to access, particularly for lower-income individuals. They have also highlighted the need for a more balanced approach to tax rates that supports both consumers and the industry.

2. Government Stance

The government's decision to form the GoM reflects its recognition of the concerns raised by the insurance sector and consumer groups. Finance Minister Nirmala Sitharaman has emphasized the need for a balanced approach that considers the interests of all stakeholders.

3. Public Debate

The issue of GST rates on insurance has been a topic of public debate, with various media outlets and policymakers weighing in on the potential benefits and drawbacks of rate changes. Public opinion is divided, with some advocating for lower GST rates to enhance affordability, while others caution against potential revenue losses.

CONCLUSION

The formation of the Group of Ministers (GoM) by the GST Council to review the tax rates on health and life insurance is a significant development in the ongoing discourse on tax policy and insurance affordability. The GoM's review will address key concerns related to the impact of GST rates on consumers, the insurance industry, and government revenue.

As the GoM undertakes this review, it will need to carefully balance the need to make insurance more affordable with the necessity of maintaining ade-

quate revenue for government functions. Engaging with stakeholders, conducting thorough economic impact analyses, and considering practical implementation challenges will be crucial in shaping effective and sustainable tax policies.



PRELIM QUESTION:

Q.The GST Council has recently formed a Group of Ministers (GoM) to review the tax rates on health and life insurance. Which of the following statements is/are correct regarding this GoM?

- 1.The GoM is responsible for reviewing the GST rates on both health and life insurance.
- 2.The GoM is chaired by the Union Finance Minister.
- 3.The objective of the GoM is to assess the impact of GST rates on the affordability and accessibility of insurance.

Options:

- A. 1 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 2 and 3 only

Answer: C

MAINS QUESTION:

Q.Analyze the reasons behind this review and discuss the potential implications for various stakeholders, including consumers, insurance companies, and the government. What factors should the GoM consider to ensure that any adjustments in GST rates are balanced and effective?(150words)

President's Rule: A Constitutional Safeguard or a Political Bludgeon?

WHY IN THE NEWS?

Recently the President of India forwarded the report on the imposition of the President's rule in Delhi to the Union Home Ministry.

'PRESIDENT'S RULE IN DELHI'? AAP'S BIG CHARGE ON BJP



WHAT IS THE EMERGENCY?

DEFINITION OF EMERGENCY:

The Emergency provisions in the Indian Constitution, are designed to empower the Central government to address exceptional circumstances. These provisions ensure the protection of the country's sovereignty, unity, integrity, and security, as well as the democratic political system and the Constitution itself.

Constitutional Provisions: Articles 352 to 360 of

Part XVIII of the Indian Constitution cover emergency provisions.

TYPES OF EMERGENCIES

1. National Emergency (Article 352).
2. President's Rule or State Emergency (Article 356)
3. Financial Emergency (Article 360)

PRESIDENT'S RULE (ARTICLE 356):



REASONS FOR SUCH PROVISIONS IN THE CONSTITUTION:

Context of Partition: The Constitution framers, writing during the tumultuous period of Partition, were concerned about potential threats to national unity, including secession, ethnic conflict, and communist revolutions.

Central Authority: the constitution makers, vested the power to intervene in cases of severe law and order breakdown or constitutional governance failure with the Union government, rather than state Chief Ministers, to maintain national stability.

As Dead Letters: Despite anticipating possible abuse of these powers, Dr. B.R. Ambedkar acknowledged the risk of misuse and hoped such provisions would remain unused, referring to them as "dead letters."

GROUNDINGS AND PROCEDURES FOR IMPOSING PRESIDENT'S RULE (ARTICLE 356):

Grounds for Imposition:

Article 356: The President can issue a proclamation if satisfied that a situation has arisen where a state's government cannot be carried on according to the Constitution. This can be based on the governor's report or other information.

Article 365: The President may also act if a state fails to comply with or give effect to directions from the Centre, leading to the conclusion that the state government cannot function according to the Constitution.

PARLIAMENTARY APPROVAL AND DURATION:

Initial Approval: A proclamation of President's Rule must be approved by both Houses of Parliament within two months from its issuance. If the Lok Sabha is dissolved or dissolved within this period, the proclamation remains in force until 30 days from the first sitting of the reconstituted Lok Sabha, provided the Rajya Sabha approves it.

Duration and Extensions: Once approved, the President's Rule continues for six months and can be extended up to a maximum of three years, with Parliament's approval every six months. If the Lok Sabha is dissolved during this period, the proclamation remains effective until 30 days after the new Lok Sabha's first sitting, provided Rajya Sabha approval is maintained.

44TH AMENDMENT ACT (1978):

Extension beyond one year requires:

1. A National Emergency must be in operation across India or in the concerned state.
2. The Election Commission must certify that elections cannot be held due to difficulties.

Revocation: The President can revoke a proclamation of President's Rule at any time by issuing a subsequent proclamation, which does not require parliamentary approval.

HISTORICAL USE AND MISUSE:

Frequency and Controversy: Since 1950, the President's Rule has been imposed over 125 times, averaging about twice per year. The use of Article 356

has been controversial and criticized, often being viewed as arbitrary and politically motivated.

Historical Examples: The first imposition of President's Rule occurred in Punjab in 1951. By now, nearly all states have experienced a President's Rule at least once.

Political Manipulation: After the 1977 Lok Sabha elections, the Janta Party, led by Morarji Desai, imposed President's Rule in nine states where the Congress Party was in power, claiming the assemblies no longer represented the electorate. When the Congress Party returned to power in 1980, it imposed President's Rule in nine states on similar grounds.

CONSEQUENCES OF PRESIDENT'S RULE:

1. Assumption of Powers: The President assumes the functions of the state government and the powers vested in the governor or any other state executive authority.

2. Administrative Actions: The President can take necessary steps, including suspending constitutional provisions relating to any state body or authority.

3. State Government: The President dismisses the state council of ministers, and the state governor, on behalf of the President, administers the state with the chief secretary or appointed advisors.

4. Legislative Assembly: The state legislative assembly may be suspended or dissolved. In such cases:

Law-Making: Parliament can delegate law-making powers to the President or another specified authority.

Budget and Laws: The Parliament, or delegated authority, can pass state legislative bills and the state budget.

Expenditure and Ordinances: The President can authorize expenditure from the state's consolidated fund and promulgate ordinances when Parliament is not in session.

CRITICISM OF THE ARTICLE 356:

Unprecedented Action: Article 356 allows unilateral Union intervention in state governance, a provision not seen in modern federal constitutions.

Doubt About Necessity: The relevance of Article 356 in contemporary India, 70 years post-independence, is increasingly questioned because of its misuse by the union government.

Contradiction to other provisions: Uttarakhand High Court's Observation: The court viewed Article 356 as contrary to pure federalism, likening it to an intrusion into state affairs.

Originalist vs. Transformative View: The court's defense based on the framers' original intent is criticized for not adapting to modern contexts.

Changing Political Landscape: The need for Article 356 is less clear today, as the political environment has evolved since the post-partition era.

Moral and Ethical Concerns: Allowing the Union to intervene based on political disagreements or perceived anti-social elements challenges the principles of federalism and needs reassessment.

SOLUTION AND RECOMMENDATIONS:

- 1. Rare Use:** The Sarkaria Commission recommends that Article 356 should only be invoked in rare and exceptional cases where no other options are viable.
- 2. Procedural Safeguards:** The Sarkaria Commission provided some safeguards before invoking article 356 these are earning to states, assessment of governor report, and, avoiding dissolution of the state legalization.
- 3. Incorporation of Supreme Court Principles:** The Puncchi Commission recommended integrating the principles from the Supreme Court's S.R. Bommai v. Union of India (1994) decision into the Constitution.
- 5. Localized Emergency:** It Punchhi Commission suggested implementing a "Localized Emergency" for troubled areas rather than imposing a blanket emergency across the entire

state.

6. **Duration of Emergency:** The Punchhi Commission recommended that any emergency declared under this framework should be limited to a maximum of three months.
7. **Reforms Relating to Anti-Defection Laws:** This would help to reduce the collapse of the government and the use of Article 356.
8. **Independent role of the governor:** The Governor plays a crucial role in declaring emergencies, as their reports are essential for presidential recommendations.
9. **Last Resort:** Article 356 should be used as a last resort, respecting B.R. Ambedkar's intent for its rare application and upholding the people's mandate.
10. **Role of the judiciary:** Ensure that the judiciary effectively balances the protection of democratic state governments with the need to uphold national security and integrity, as established in the S.R. Bommai case.

CONCLUSION

The Indian Constitution incorporates emergency provisions to address national crises, aiming to safeguard the country's security, integrity, and stability. However, these provisions have sometimes been misused, leading to political manipulation and undermining democratic principles. It is crucial to exercise emergency measures with caution, strictly adhering to legal and procedural norms, to prevent their abuse and ensure that democratic values and constitutional integrity are maintained.

PRELIMS QUESTION:

Q. With reference to Article 356 of the constitution, consider the following statements:

1. The imposition of the president's rule under Article 356 by the president of India, requires approval of the Union cabinet.

2. The parliament does not have any role in the revocation/imposition of the president rule in the state.

3. The defense ministry of the government of India can furnish a report for the imposition of the emergency under Article 356 in international border states.

How many of the above-given statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

ANSWER: A

MAINS QUESTION:

How were the centre-state relations impacted by the imposition of the president's rule in the state and what are the recommendations to make reasonable use of Article 356? Do you think that there is a need to amend Article 356 of the Constitution?

(250 words 15 marks)

ADB Loans \$200 Million for India's Waste Management Improvement

RECENT CONTEXT:

In recent years, India has faced a mounting challenge in managing its waste, a problem exacerbated by rapid urbanization, population growth, and inadequate infrastructure. In response to these pressing issues, the Asian Development Bank (ADB) has approved a significant loan of \$200 million to enhance India's waste management systems. This funding is not merely a financial injection; it represents a strategic commitment to fostering environmental sustainability, improving public health, and promoting economic development.

BACKGROUND ON INDIA'S WASTE MANAGEMENT CRISIS

India generates an estimated 62 million tons of waste each year, a figure that is expected to rise as urban populations continue to grow. The current waste management practices in many Indian cities are insufficient, leading to severe environmental degradation, health hazards, and quality-of-life issues for millions of residents.

The signatories to the loan agreement for the Swachh Bharat Mission 2.0 -Comprehensive Municipal Waste Management in Indian Cities Program were Juhi Mukherjee, Joint Secretary, Finance Ministry, and Mio Oka, Country Director for Asian Development Bank (ADB) – India Resident Mission, the Manila-based multilateral funding agency said in a statement on Tuesday.

After signing the loan agreement, Mukherjee said that the programme supports the objectives of the government's Swachh Bharat (Clean India) Mission – Urban 2.0 by enhancing sanitation and solid waste management infrastructure, including waste segregation, collection and disposal.

1. Urbanization and Waste Generation

The rapid urbanization witnessed in India, with cities expanding at an unprecedented rate, has outpaced the development of waste management infrastructure. Urban areas produce approximately 70% of the total waste generated in the country, and without effective systems in place, the management of this waste has become a daunting task.

2. Public Health Concerns

Improper waste disposal has direct implications for public health. Landfills often overflow, leading to the contamination of air and groundwater. Inadequate waste segregation results in hazardous materials being mixed with general waste, posing additional risks. Diseases linked to poor sanitation and waste management are on the rise, impacting vulnerable populations the most.

3. Environmental Impact

The environmental repercussions of ineffective waste management are severe. Landfills contribute significantly to greenhouse gas emissions, while open dumping leads to soil and water pollution. The lack of recycling and composting facilities means that valuable resources are lost, exacerbating the environmental crisis.

OBJECTIVES OF THE ADB LOAN

The ADB's loan aims to address these multifaceted challenges through a comprehensive approach that targets both infrastructure and community engagement. The key objectives of the funding include:

1. Infrastructure Development

The loan will support the construction and upgrading of waste processing and treatment facilities in select cities. This includes setting up modern composting units, recycling plants, and sanitary landfills equipped with the latest technology to minimize environmental impact.

2. Technological Integration

The introduction of advanced technologies for waste segregation, processing, and disposal will be a cornerstone of the initiative. These technologies will improve efficiency and effectiveness, allowing for better waste management outcomes.

3. Capacity Building and Training

Empowering local governments and communities is critical for sustainable waste management. The ADB initiative will include training programs to enhance the skills of municipal staff and raise public awareness about waste management practices.

4. Policy Framework Enhancement

The initiative aims to support the development of effective policy frameworks that encourage sustainable waste management practices. This includes promoting the adoption of waste segregation at source and implementing extended producer responsibility (EPR)

for waste generators.

EXPECTED BENEFITS

1. Environmental Sustainability

Improved waste management practices will significantly reduce the amount of waste sent to landfills, lower greenhouse gas emissions, and promote recycling. These changes will contribute to national and global environmental sustainability goals.

2. Economic Growth

Investing in waste management can stimulate economic development by creating jobs in the waste management sector and related industries. Additionally, fostering a circular economy can enhance resource efficiency and reduce costs for municipalities.

3. Public Health Improvement

By minimizing waste-related pollution and promoting proper waste management practices, the initiative is expected to lead to improved public health outcomes. Reducing disease outbreaks associated with unmanaged waste can significantly benefit communities, particularly vulnerable populations.

4. Community Engagement and Awareness

Engaging communities in waste management efforts can foster a culture of sustainability. Awareness campaigns and educational programs will encourage residents to adopt responsible waste disposal and recycling practices, ultimately leading to behavioral changes.

IMPLEMENTATION CHALLENGES

1. Funding and Resource Allocation

Ensuring that the funds are used efficiently and reach the intended projects is crucial. Transparency and accountability mechanisms will need to be in place to prevent misallocation and corruption.

2. Infrastructure Gaps

Many regions, particularly rural and semi-urban areas, still lack basic waste management infrastructure. Bridging these gaps will require careful planning and significant investment beyond the ADB loan.

3. Behavioral Change

Changing public attitudes towards waste management can be challenging. Sustained education and engagement efforts will be necessary to promote responsible behaviors and encourage community participation.

4. Inter-Governmental Coordination

Effective waste management requires collaboration among various government levels and departments. Streamlining processes and ensuring coherent policies will be essential for the success of this initiative.

CASE STUDIES OF SUCCESSFUL WASTE MANAGEMENT

1. Sweden

Sweden has become a global leader in waste management and recycling, with over 99% of its waste being recycled or used for energy recovery. The country has implemented strict regulations and incentives for recycling and waste reduction, showcasing the effectiveness of a comprehensive waste management strategy.

2. South Korea

South Korea's "Volume-Based Waste Fee" system has significantly reduced waste generation. By charging residents based on the amount of waste they produce, the country has encouraged recycling and composting. This approach has successfully altered consumer behavior and reduced landfill reliance.

3. Germany

Germany's "Green Dot" system requires manufacturers to take responsibility for packaging waste, encouraging them to design products that generate less waste. This model has not

only improved recycling rates but also engaged businesses in sustainable practices.

CONCLUSION

The ADB's \$200 million loan to India for waste management improvement is a pivotal step toward addressing one of the country's most pressing challenges. By focusing on infrastructure development, technological integration, capacity building, and community engagement, this initiative has the potential to transform waste management practices across urban centers in India.

As the global community increasingly recognizes the importance of sustainable waste management, India's initiative, backed by ADB funding, could serve as a model for other developing nations facing similar issues. Through effective implementation and collaboration among stakeholders, India can not only improve its waste management systems but also pave the way for a cleaner, healthier, and more sustainable future.



PRELIM QUESTION:

- Q. Which of the following is the primary objective of the \$200 million loan provided by the Asian Development Bank (ADB) to India?
- A. To promote renewable energy sources
 - B. To improve waste management systems
 - C. To enhance agricultural productivity

- D. To support urban transportation infrastructure

Answer:B

MAINS QUESTION:

- Q. In what ways can effective waste management contribute to environmental sustainability in India. **explain?(150words)**

Capital Expenditure: The Catalyst for Economic Growth

WHY IN THE NEWS?

Union Finance Minister Smt. Nirmala Sitharaman recently chaired the second meeting to review Capital Expenditure (CapEx) for the Ministry of Railways in New Delhi.

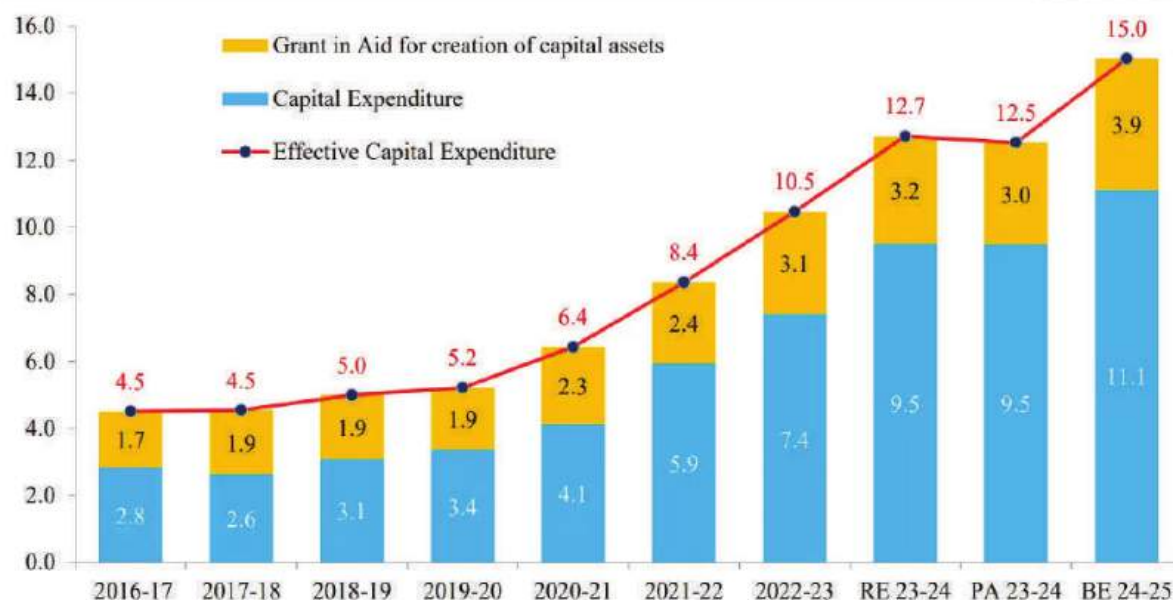


WHAT IS THE CapEx?



पूंजीगत व्यय की प्रवृत्ति TREND IN CAPITAL EXPENDITURE

(₹ in lakh crore)



वित्त वर्ष 2023-24 के लिए अनंतिम वास्तविक आंकड़े लेखा परीक्षित नहीं हैं और परिवर्तन के अध्याधीन हैं।
Provisional Actuals for FY 2023-24 are unaudited and subject to change.

Capital Expenditure (CapEx) refers to government spending focused on acquiring, upgrading, or maintaining physical assets and infrastructure that benefit society. This includes investments in roads, schools, hospitals, public transport, and other essential facilities aimed at enhancing public services and long-term economic growth.

Effective capital expenditure (Capex) in India is the total government spending on investments that create long-term assets and infrastructure, plus grants given to the states, for creating capital assets. It's a measure of the true extent of public investment by the central government.

TYPES OF GOVERNMENT CAPEX:

Infrastructure Projects: Roads, bridges, and public transportation systems.

Public Facilities: Schools, hospitals, and community centers.

Equipment and Technology: Purchase of machinery for public services, such as waste management or emergency response.

Land Acquisitions: Buying land for future development or conservation.

EXAMPLES OF GOVERNMENT CAPEX

Infrastructure Development: A government might invest Rs 500 crore in building a new highway, improving connectivity, and promoting economic activities in the region.

Public Health Facilities: Allocating funds to upgrade hospitals can improve healthcare services and enhance community well-being.

Education Infrastructure: Investing in new school buildings or renovating existing ones can lead to better educational environments for students.

REASONS FOR THE INCREASED CAPEX IN RECENT YEARS:

Government Initiatives and Policies: The National Infrastructure Pipeline (NIP), Make in India, and production-linked Incentive Scheme are the vehicles for increasing the CapEx in the recent period.

Focus on Economic Recovery: Following the economic disruptions caused by the COVID-19 pandemic, the government has prioritized CapEx to stimulate growth and job creation.

Public Sector Investment: Increased spending by public sector enterprises, specifically railways and roads to bolster economic activity.

Increased Budget Allocations: Recent budgets have allocated a higher percentage to CapEx, reflecting a commitment to long-term development.

Financing and Investment: Low interest rates and favorable lending conditions have made it easier for both the government and private sectors to finance capital projects.

Emphasis on Infrastructure Development: Recognition of the need for improved infrastructure in transportation, energy, and urban development has driven up CapEx.

Public-Private Partnerships (PPP): Growth in PPP models has led to increased investment from the private sector in infrastructure projects, complementing government spending.

Technological Advancements: Investments in digital infrastructure like **Digital India Mission**, and technology-driven projects have also seen a rise, aligning with global trends.

Environmental Sustainability: Growing emphasis on sustainable development has led to investments in green infrastructure, such as renewable energy projects.

FEATURES OF THE CAPEX:

Long-term Investments: CapEx represents long-term investments, meaning the assets purchased or upgraded typically have a useful life of one year or more. For example, constructing a bridge or a

school has benefits that extend for decades.

Budgeting and Planning: Effective CapEx requires careful budgeting to ensure that funds are allocated efficiently. Governments need to assess the potential economic impact of their investments and ensure they align with long-term goals.

Impact on the Economy: Properly executed CapEx can lead to job creation, improved infrastructure, and enhanced quality of life for citizens. For example, investing in public transport can reduce congestion and pollution, while building schools can improve educational outcomes.

Monitoring and Accountability: Government CapEx is closely monitored by taxpayers, analysts, and policymakers to ensure that funds are spent wisely. Regular reviews and audits help in assessing the effectiveness and efficiency of capital projects.

Depreciation Considerations: Just like in the private sector, the value of capital assets owned by the government can depreciate over time. This impacts future budgeting and funding requirements for maintenance or replacements.

IMPORTANCE OF CAPITAL EXPENDITURE (CapEx)

Creation of Long-Term Assets: CapEx leads to the development of physical assets, such as infrastructure and facilities, which can generate revenue over many years.

Boosting Economic Capacity: By adding or improving production facilities, CapEx enhances operational efficiency and increases the economy's ability to produce goods and services.

Labor Participation: Investments in infrastructure and development projects can create jobs, increase labor participation, and drive economic growth.

Repayment of Loans: CapEx also includes the repayment of loans, which reduces liabilities and strengthens the financial position of the government.

Future Revenue Generation: Well-planned capital investments can yield significant returns in the future, supporting ongoing public services and eco-

conomic stability.

Fiscal Discipline: While essential, governments must exercise caution with CapEx to avoid over-spending. For instance, in the financial year 2019-20, capital expenditure was 14.2% of the Budget Estimates, leading to necessary cuts in public spending to meet deficit targets.

CHALLENGES THAT LIMIT THE CAPEX IMPACTS:

1. Rapid Rise in Interest Rates: the global scenario is impacting the real potential of government expenditure.

2. Inflation Impact on Capital Allocation: In the last few years the RBI has not been able to limit inflation to the prescribed upper limit this erodes the value of rupees and limits the Capital expenditure's impact on the economy.

3. Impact of Increased Energy Prices: Due to Global uncertainty India which is the second largest importer of crude oil diverted the funds from the capital accounts.

4. CapEx Challenges in a Recession: India's ICOR is still high compared to the other developed countries which reflects the capital expenditure is not contributing to sustainable growth.

5. Capital and Human Resource Constraints: Due to the NPA and Crowding out effects banks are averting the loans to the private sector and this is limiting the public-private partnership.

6. Impact of Extreme Weather: In recent times this has the one of the major challenges which limit government expenditure, in fact, extreme weather like Landslide floods in some states are consuming the government budget.

7. Unequal developments: The infrastructure projects and developmental projects are contracted in the particular states. For example, Maharashtra, Gujarat, Tamilnadu, etc.

WAYS TO BOOST THE CapEX IMPACTS ON THE ECONOMY:

1. Increase Public Investment: The government can allocate more funds to the healthcare education, and infrastructure sectors to boost the CapEx impact on the economic development.

2. Leverage Public-Private Partnerships (PPPs): Attract Private Investment: Encourage collaboration with private firms for infrastructure projects, sharing risks and rewards.

3. Streamline Regulatory Processes: The simplification of the approvals and enhancing transparency can increase investments. The use of the MCA portal can help in this.

4. Focus on Emerging Sectors: The government now can focus on green energy and other innovative technologies that will help to boost the economy.

5. Improve Financial Access: Provide favorable financing options for capital projects, especially for small and medium enterprises (SMEs).

6. Regional Development Initiatives: the direct CapEx towards emerging regions like Bihar, Uttar Pradesh, and eastern India will address the regional disparities.

7. Promote Skill Development: The Skill India program and other programs have the potential to provide skills to many youths. Hence government can directly invest in such reward-giving programs.

8. Utilize Technology for Efficiency: Implement advanced project management and monitoring tools to optimize CapEx deployment.

CONCLUSION:

Capital Expenditure is a critical tool for governments aiming to enhance public services, stimulate economic growth, and improve the overall quality of life for their citizens. Effective planning, execution, and monitoring of CapEx projects ensure that these investments yield long-term benefits and sustainability.

Prelims Question:

Q. Consider the following expenditures:

1. Payment of Officials in the defense ministry.
2. Purchases of a new machine in ministry
3. Repairing the existing government vehicle
4. Construction of the road in a remote area
5. Transferring the ownership of the Air India
6. Paying debt of the World Bank.
7. Investment in the Government Securities.

How many mentioned above are classified as part of the capital expenditure (CapEx) of the Government of India?

- A. Only two
- B. Only three
- C. Only Four
- D. Only five.

ANSWER: B

Mains Question:

Q. Account for the recent increase in the capital expenditure of the government of India and mention the significance of the CapEX for the economic development in India.

(150 words 10 marks)

India's pathway to Net Zero Carbon emissions by 2070

WHY IN THE NEWS?

Recently NITI Aayog CEO said that NITI Aayog is working on strategies to achieve the target of Net

Zero Emission by 2070.



WHAT IS CLIMATE CHANGE?

Climate change refers to long-term changes in temperature and weather patterns. While such shifts can occur naturally due to factors like variations in solar activity or volcanic eruptions, human activities have been the primary cause of climate change since the 1800s. The burning of fossil fuels—such as coal, oil, and gas—has led to significant greenhouse gas emissions. These gasses act like a blanket around the Earth, trapping heat and raising global temperatures.

NET- ZERO EMISSION OR CARBON NEUTRALITY:

Net-zero carbon emissions refer to the balance between the amount of greenhouse gasses emitted into the atmosphere and the amount removed from it. Achieving net zero means that any carbon dioxide (CO₂) emissions produced by human activities are balanced by an equivalent amount of CO₂ removed from the atmosphere, resulting in no net increase in atmospheric CO₂ levels.



INDIA AND CLIMATE CHANGE

Climate change is a global challenge and requires collective global action to avert and minimize the impacts of climate change. International efforts to address climate change are guided by the United Nations Framework Convention on Climate Change (UNFCCC) and its two instruments, namely the Kyoto Protocol and the Paris Agreement. As a responsible global player, India is a Party to the UNFCCC and its instruments.

At the COP26 Summit in Glasgow, the Hon'ble Prime Minister of India made five key commitments to combat climate change:

- 1. Net Zero Emissions by 2070:** India aims to achieve net-zero emissions by the year 2070.
- 2. 50% Renewable Energy by 2030:** By 2030, India will ensure that 50% of its energy requirements come from renewable sources.
- 3. Reduce Carbon Emissions:** India will decrease its total projected carbon emissions by one billion tonnes by 2030.
- 4. 500 GW Non-Fossil Energy Capacity:** India plans to expand its non-fossil energy capacity to 500 GW by the end of 2030.
- 5. Reduce Carbon Intensity:** The nation will aim for a reduction in carbon intensity of over 45% by 2030, compared to 2005 levels.

VARIOUS INITIATIVES AND POLICIES BY THE GOVERNMENT OF INDIA TO DEAL WITH CLIMATE CHANGE:

DOMESTIC LEVEL INITIATIVES:

- 1. The National Action Plan on Climate Change (NAPCC)** serves as India's comprehensive policy framework for climate action, outlining strategies for both adaptation and mitigation.
- 2. The National Mission on Sustainable Transport** is in development to promote efficient, cost-effective transportation solutions that consider environmental, social, and economic factors.
- 3. National Biodiversity Action Plan:** Aims to protect and conserve biodiversity, which is vital for climate resilience.
4. Schemes like Green Hydrogen Mission, PM Ujjala, and Soil Health Card, all are directed toward reducing carbon emissions.

INTERNATIONAL LEVEL INITIATIVES:

- 1. Mission Life:** It primarily focuses on the reduction of the carbon footprint of individuals through eco-friendly practices.
- 2. International organizations like the International Solar Alliance, and Global Biofuel Alliance,** formed by India's active role aimed at working to reduce the dependency on fossil fuels.
- 3. Kigali amendment:** This aims to phase out the global warming chlorofluorocarbon substances.
- 4. Global stocktake:** Under the Paris Agreement India presented its first-ever global Stocktake in 2023 at COP 28.
- 5. Coalition for Disaster Resilient Infrastructure (CDRI):** An initiative to promote resilience in infrastructure systems to climate-related disasters, fostering international cooperation.
- 6. Bharat Stage Emission Standards (BSES):** Aligning vehicle emission norms with international standards to reduce air pollution and improve air quality.

India at the Forefront of Mitigating CLIMATE CHANGE



WHAT ARE THE CHALLENGES THAT LIMIT INDIA TO ACHIEVING NET ZERO EMISSIONS?

1. **Development vs climate change:** India is a developing country even though its per capita emission is less overall. India is the third largest emitter in the world.
2. **Climate finance:** A major issue not only for India but all developing countries is climate finance. Most countries including India are lacking in climate finance.
3. **Technology Transfer:** India lacks the technology to mitigate and adapt to the effects of climate change.
4. **Vulnerability:** According to the IPCC report, India is one of the most severely vulnerable countries.
5. **Lack of international collaboration:** global countries are not on the same page when it comes to climate change. India is finding it difficult to navigate these challenges.
6. **Dependency on Fossil fuel:** Still India is dependent on coal-based energy sources. Around 50 percent of electricity is produced by using coal-based resources.
7. **Slow transition:** The slow transition to renewable energy and green energy is slow and steady vis to the climate change effect.
8. **Agricultural Challenges:** Agriculture, a major sector in India, faces pressures from climate change itself. Transitioning to sustainable practices while ensuring food security is complex.
9. **Policy and Regulatory Framework:** Inconsistent policies and regulatory barriers can slow down the implementation of renewable energy projects and climate initiatives.

STEPS TO ACHIEVE THE NET-ZERO EMISSION TARGET BY 2070

1. **Green Energy:** India's path to achieving this target passes through green energy initiatives like Green hydrogen are welcome steps in this regard.
2. **Harnessing the renewable energy potential:** India can harness the potential of its solar and wind energy to achieve more renewable energy from these sources. The National Solar Mission and Wind Mission are harnessing these potentials.
3. **Collaboration with countries:** India and other countries like the US have a clean energy mechanism to collaborate on climate change issues.
4. **Sustainable agriculture practices:** The use of sustainable practices such as hydroponics and climate-smart agriculture is needed to reduce GHG emissions.
5. **Investment in Climate Resilient Infrastructure:** the green steel industry and charcoal roads are the beginning of such climate-resilient infrastructure. The special allocations of funds are such initiatives that would help to reduce the climate impacts.
6. **Leadership at the international level:** India's International Solar Alliance and other international-level initiatives will help India get the needed finance and help other third-world countries.
7. **Technology and innovations:** The fight against the climate remains empty if India ignores the

technology. So India needs to be more focused on technological developments.

8. **Active citizenry:** active and aware citizens can reduce the emissions of the GHG and would help to reduce the carbon footprints.
9. **Preservation of biodiversity:** India is one of the top biodiverse countries in the world and this diversity needs to be protected. The forest can act as the natural reservoir for the carbon. India's forest policy also aims to cover $\frac{1}{3}$ area of India under the forest. The mission of Sustainable Habitat needs to be implemented at the grassroots level.

CONCLUSION:

India is the only G20 nation that achieved its commitment under the Paris Agreement well before the time and the need is to keep this momentum continuing. The initiatives like LIFE Mission, and ISA are in the right direction. The NITI Aayog strategy will help India set up short-term and long-term goals to achieve the target by 2070.

Prelims Question:

Q. Consider the following techniques:

1. Ocean fertilization
2. Mineral Weathering
3. Use of the biochar
4. Use of gray carbon and hydrogen
5. Use of sulfur mirrors
6. Methane hydrate use
7. Use of membrane filters.

How many of the given above techniques can help India achieve its target of net zero emission by 2070?

- A. Only two
- B. Only three

C. Only four

D. Only five

Answer: D

Mains Question:

India has made a strong commitment to achieving net-zero emissions by 2070, but there are several challenges to address first. What are these challenges, and what short-term and long-term strategies can be implemented to achieve this ambitious target?

(250 words 15 marks)

India to establish Bharatiya Antariksh Station by 2028

RECENT CONTEXT:

India is on the brink of a new era in space exploration with its ambitious plan to establish the Bharatiya Antariksh Station (BAS) by 2028. This project signifies a leap forward for the Indian Space Research Organisation (ISRO) and the nation's broader aspirations in the realm of space. The proposed space station will not only enhance India's capabilities in scientific research and technology but also position the country as a significant player in the international space community.

BACKGROUND:

India has made remarkable strides in space technology over the past few decades. With missions like Mangalyaan (Mars Orbiter Mission) and Chandrayaan (Moon missions), ISRO has garnered international acclaim for its cost-effective and innovative approaches to space exploration. The successful launch of the Gaganyaan mission, India's first manned space mission, has set the stage for more ambitious projects, including the BAS.

The establishment of a space station aligns with India's growing ambitions in space and mirrors similar initiatives by countries like the United States, Russia, and China. The global space race has evolved beyond just exploration; it now encompasses commercial, military, and scientific interests, prompting nations to invest heavily in space infrastructure.

OBJECTIVES OF THE BHARATIYA ANTARIKSH STATION:

- 1. Scientific Research:** The space station will provide a platform for conducting experiments in microgravity, which can lead to breakthroughs in various fields, including medicine, materials science, and astrophysics.
- 2. Technological Development:** Developing technologies for life support, habitat construction, and sustainable living in space will have far-reaching implications for future missions, including potential manned missions to Mars.
- 3. International Collaboration:** The station will foster collaborations with other countries and space agencies, promoting shared scientific knowledge and resources.
- 4. Educational Outreach:** By establishing a presence in low Earth orbit, India hopes to inspire the next generation of scientists and engineers, fostering interest in STEM fields among students.
- 5. Strategic Presence:** With the increasing importance of space in national security, having a space station will enhance India's strategic capabilities.

TIMELINE AND PHASES OF DEVELOPMENT:

- 1. Phase 1: Planning and Design (2023-2025)**
This initial phase will involve extensive planning, design, and feasibility studies. ISRO will collaborate with various stakeholders, including academic institutions and industry partners, to develop the necessary technologies and infrastructure. This phase will also focus on determining the optimal orbit for the sta-

tion, which will likely be in low Earth orbit (LEO).

- 2. Phase 2: Development of Components (2025-2027)**
In this phase, ISRO will begin the development of key components for the space station. This includes life support systems, habitat modules, and docking mechanisms. Tests and simulations will be conducted on Earth to ensure that all systems function effectively in the harsh conditions of space.
- 3. Phase 3: Launch and Assembly (2028)**
The final phase will involve the actual launch of the station's modules into space, followed by assembly in orbit. ISRO plans to use its existing launch vehicles, such as the GSLV Mk III, to send modules into space. The assembly process will require careful coordination and precision to ensure that all components fit together seamlessly.

TECHNOLOGICAL INNOVATIONS:

- 1. Life Support Systems**
Creating a sustainable environment for astronauts is paramount. Innovations in air and water recycling, food production, and waste management will be essential. ISRO plans to incorporate advanced life support systems that ensure long-term habitation in space.
- 2. Propulsion Technologies**
Efficient propulsion systems will be critical for transportation to and from the station. ISRO is exploring advanced propulsion technologies that will reduce travel time and costs, making regular missions feasible.
- 3. Robotics and Automation**
Robotic systems will play a significant role in the assembly and maintenance of the space station. These technologies will allow for remote operations and reduce the need for human presence during complex tasks.

INTERNATIONAL COLLABORATIONS AND PARTNERSHIP:

The establishment of the BAS presents an oppor-

tunity for India to strengthen its ties with other countries in the field of space exploration. Collaborations with space agencies such as NASA, ESA (European Space Agency), and Roscosmos can lead to shared resources and knowledge, enhancing the scientific output of the station.

India has already initiated discussions with various countries regarding potential partnerships. Joint missions, shared experiments, and collaborative research projects are on the horizon, which will further solidify India's position in the global space community.

ECONOMIC IMPACT:

The establishment of the Bharatiya Antariksh Station is expected to have a significant economic impact. The space sector has proven to be a catalyst for technological advancements and job creation. By investing in space infrastructure, India can stimulate growth in various industries, including aerospace, telecommunications, and materials science.

Furthermore, the potential for commercial activities in space, such as satellite servicing and space tourism, opens up new avenues for economic development. As the global space economy continues to grow, India's investments in the BAS will position the country to take advantage of emerging opportunities.

CHALLENGES AHEAD:

- 1. Funding and Budget Constraints** Establishing a space station is a costly endeavor. Securing adequate funding from the government and potential private investors will be critical. ISRO will need to demonstrate the value and return on investment for the project to attract the necessary financial support.
- 2. Technological Hurdles** Developing the required technologies for life support, propulsion, and habitat construction poses significant challenges. Continuous research and development will be essential to overcome these hurdles and ensure the safety and well-being of astronauts.

- 3. International Regulations and Policies** Navigating the complex landscape of international space regulations will be necessary for the successful establishment of the BAS. Collaborating with other nations will require adherence to various treaties and agreements governing space activities.

PUBLIC ENGAGEMENT AND OUTREACH:

As India embarks on this monumental journey, public engagement and outreach will play a vital role. ISRO aims to involve citizens in the space program through educational initiatives, public lectures, and outreach programs in schools and universities. This engagement will foster a sense of ownership and pride in the nation's space achievements.

- 1. Inspirational Stories** Sharing success stories from space missions and highlighting the contributions of Indian scientists and engineers will inspire future generations to pursue careers in space science and technology. By showcasing the real-world impact of space exploration, ISRO hopes to ignite interest and enthusiasm among young people.

CONCLUSION:

The establishment of the Bharatiya Antariksh Station by 2028 marks a transformative step for India in the realm of space exploration. This ambitious project has the potential to enhance scientific research, technological innovation, and international collaboration, positioning India as a formidable player in the global space community.



As the country prepares to embark on this exciting

journey, the successful execution of the BAS will not only elevate India's standing in the field of space exploration but also inspire future generations to reach for the stars. With the right investments, collaboration, and public support, India is poised to make significant contributions to humanity's understanding of space and its possibilities.

PRELIM QUESTION:

Q. What is one of the primary objectives of the BAS?

- A. Conducting military operations
- B. Space tourism
- C. Scientific research in microgravity
- D).Mining asteroids

Answer:C

MAINS QUESTION:

Q. Reflect on the historical context of India's space program and its evolution towards the establishment of a space station.(150wors)

India's High-Tech Revolution: Driving Global Leadership in Advanced Technology & Manufacturing

WHY IN THE NEWS?

Recently, the PM of India highlighted the advancement in the science and technology field at the Semicorn India Summit 2024.

Government of India's initiatives in recent times for the advancement of science and technology:

WISE-KIRAN: The Women in Science and Engineering-KIRAN (WISE-KIRAN) initiative aims to promote gender equity in science and technology by provid-

ing diverse opportunities for women from various backgrounds.

INSPIRE program: The Innovation in Science Pursuit for Inspired Research (INSPIRE) program seeks to attract talented youth to study basic and natural sciences and pursue research careers, thereby expanding India's research and development base.

VAIBHAV Research Programme: This aims to connect the Indian STEMM diaspora with local institutions to foster research collaborations and innovation.

National Programme on Nano Science and Technology (NPNST): the National Programme on Nano Science and Technology (NPNST) focuses on building capacity in nanoscience research, promoting high-impact innovation, fostering **interdisciplinary collaboration, and enhancing India's global competitiveness in the field of nanotechnology.**



Reasons for the Recent boost in the science and technology Advancement:

1. The proactive policies of the governments:

The initiatives like National Quantum Mission, and the National Semiconductor mission are examples of the proactive role of the Governments.

2. **Skilled workforce:** Due to the government's positive approach many enthusiastic budding scientists join the hands of the Government.
3. **Role of private players:** Private players are working hand in hand with the government for the advancement of scientific development. For example India's space sector. Recently private startup in Hyderabad launched its small satellite.
4. **The increased allocation of funding to R&D:** In the last decade, The Gross Expenditure on Research and Development (GERD) increased from ₹601,968 million in 2010-11 to ₹1,273,810 million in 2020-21.
5. **Robust of the startup culture:** India has become the third largest startup economy in the world and most startups are in the domain of science and technology.
6. **Global Collaborations:** Partnerships with international research institutions and organizations have facilitated knowledge exchange

and access to cutting-edge technologies. India is actively engaging with the International Renewable Energy Agency, and Space institutions to boost the advancement in the science field.

7. **Focus on STEM Education:** The NEP 2020, emphasizes science, technology, engineering, and mathematics (STEM) education has created a skilled workforce equipped to tackle complex challenges.
8. **Digital Transformation:** The rapid adoption of digital technologies has accelerated research processes and enhanced data analysis capabilities. Digital India mission and digital Agriculture mission are boosting the demand for new technologies.
9. **Emerging Technologies:** Advancements in fields such as artificial intelligence, biotechnology, and nanotechnology have opened new avenues for research and application.
10. **Sustainability Initiatives:** Growing awareness and initiatives focused on sustainability and climate change have spurred research in green technologies and renewable energy.

Amongst the 12 Central Government major scientific agencies, DRDO accounted for the maximum share of 30.7% of R&D expenditure followed by DOS (18.4%), ICAR (12.4%), DAE (11.4%), CSIR (8.2%) and DST (6.8%), DBT (4.4%) and ICMR (3.1%), MeitY (2.2%), MoES (1.5%), MoEFCC (0.8%), and MNRE (0.1%) during 2020–21.

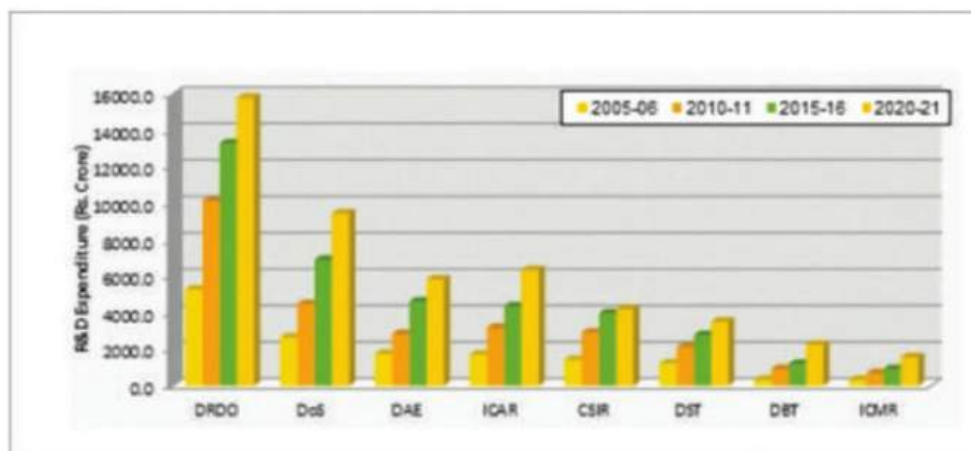


Fig. R&D Expenditure by Select Scientific Agencies

DESPITE THE RECENT BOOST, THE CHALLENGES PERSIST:

1. **Less GERD:** The spending on gross expenditure on research and development is just approx, 1 % of India's GDP compared to China(2%) and the US (3.5 %).
2. **Lack of Formalization of Innovation:** In India, most of the innovations are not patented as compared to China and the US. This limits the impact of innovation on the ground level and social benefits for society as a whole.
3. **Selective domains:** the present focus on innovation and research is majorly concentrated in space technology and communication technology. However, the health sector, education sector, and social welfare sector these sectors do not attract more science funding or support.
4. **Infrastructure Limitations:** Inadequate research facilities and infrastructure hinder the ability to conduct high-quality research and development.
5. **Talent Retention:** There is a brain drain as skilled researchers and professionals often seek opportunities abroad, leading to a loss of talent.



6. **Interdisciplinary Collaboration:** Despite the attempt from the NEP 2020 there is still a Lack of collaboration between different scientific disciplines can limit innovative solutions to complex problems.
7. **Policy Implementation:** Challenges in translating supportive policies into effective action can slow down progress and innovation. This is a clear example in the case of the rare diseases innovation and many other health issues.
8. **Cybersecurity Threats:** As reliance on digital technologies increases, so does the vulnerability to cyberattacks, affecting research data and infrastructure. The recent attack high-

lighted the vulnerability of the digital public infrastructure.

9. **Dependency on imports:** India's most scientific advancement depends on imported raw materials and this is not sustainable for the long term, especially in the context of the border conflict with China and, the PAGER attack in Lebanon.
10. **Equity in Access:** Ensuring that advancements in science and technology are accessible to all regions and demographics is essential but challenging.

SOLUTIONS TO MAKE SCIENTIFIC DEVELOPMENT FOR WE THE PEOPLE OF INDIA

1. **Robust Government Support:** The Indian government has significantly increased its funding and support for research and development, with allocations exceeding ₹1,00,000 crore in recent budgets for science and technology initiatives.
2. **International Partnerships:** Collaborations with global tech giants and research institutions will facilitate technology transfer and knowledge sharing, enhancing India's capabilities in key sectors such as artificial intelligence and biotechnology.
3. **Strategic Investments:** Focused investments in emerging areas like electric vehicles and renewable energy would pave the way for sustainable growth. For instance, India aims to have 30% electric vehicle penetration by 2030, which will require substantial innovation and infrastructure development.
4. **Electronics Manufacturing:** The government's **Production-Linked Incentive (PLI)** scheme aims to boost electronics manufacturing, with an investment target of ₹75,000 crore to attract global manufacturers and promote local production. The major domain for scientific advancement will need special attention and support.
5. **Innovation-Driven Ecosystem:** innovations need to be further boosted such as India's

start-up ecosystem has been thriving, with over 60,000 start-ups and a valuation exceeding \$200 billion as of 2023, fostering innovation across various sectors.

6. **Reducing Import Dependency:** By enhancing domestic manufacturing capabilities, India is striving to reduce its reliance on imports, particularly in critical areas such as semiconductors, where the government has launched a ₹76,000 crore initiative to boost local production.
7. **Nurturing Home-Grown Talent:** Initiatives like the **Skill India Mission** aim to equip the workforce with the necessary skills, targeting over 400 million individuals by 2022 to meet the demands of the evolving tech landscape.
8. **Advancements in New-Age Technologies:** India is making strides in cutting-edge technologies such as 5G, IoT, and AI, with investments expected to reach \$20 billion in AI alone by 2025.
9. **Long-Term Growth and Increased Exports:** With a target to reach \$1 trillion in manufacturing output by 2025, India is positioning itself as a key player in global supply chains, enhancing its export capabilities.
10. **Job Creation:** The focus on expanding manufacturing and technology sectors is projected to create millions of new jobs, contributing to economic growth and stability.

CONCLUSION:

The recent advancement in scientific development is commendable and it helps India to achieve many milestones like internet connectivity in villages, renewable energy targets, etc. The need is to address the dependency, equity, and infrastructure challenges through a public-private partnership, equitable distribution of resources, and nurturing the scientific temper. The main objective make India a developed country by 2047 and scientific development is a major pillar in this journey the need is to harness its potential.

Prelims Question:

Q. Consider the following Constitutional provisions:

1. Fundamental Rights
2. Directive Principles of State Policies
3. Fundamental Duties
4. Preamble

How many of the above provisions explicitly mention science and related topics?

- A. Only one
- B. Only two
- C. Only three
- D. All four

ANSWER: B

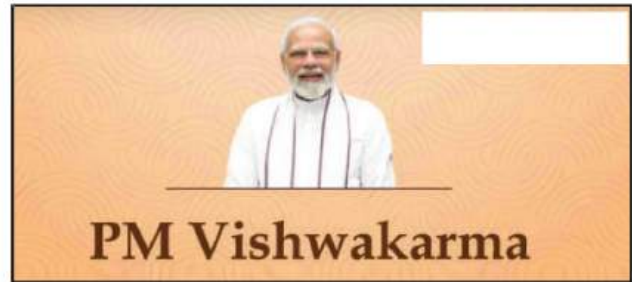
Mains Question

Discuss the recent advancement in the field of science and technology in India, and mention its challenges and how these developments would help to make India a developed country by 2047?

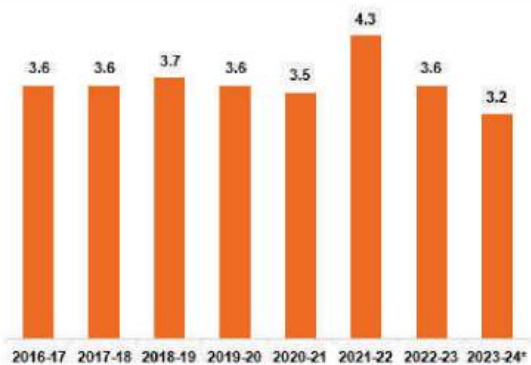
Strengthening Heritage: Social Security through the PM Vishwakarma Scheme

WHY IN THE NEWS?

Prime Minister Shri Narendra Modi addresses the National PM Vishwakarma Program in Wardha, Maharashtra.



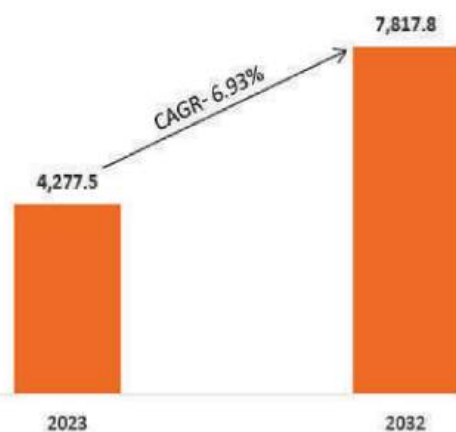
India's handmade exports (US\$ billion)



Note: *Until February 2024 (Provisional data), ^Data excludes export of carpets

Source: Export Promotion Council for Handicrafts (EPCH)

Market size over the years (US\$ million)



Source: IRMAC

INDIA AND TRADITIONAL HANDICRAFTS:

Global Position: India is one of the largest exporters of handicrafts and a leading player in the home-

made carpet segment, both in volume and value.

The handicrafts sector is a vital part of the Indian economy, employing over seven million individuals. India is known for producing a diverse range of items, including woodware, art metal wares, hand-printed textiles, embroidered goods, zari products, imitation jewelry, sculptures, pottery, glassware, attars, and agarbattis.

India boasts 744 handicraft clusters that collectively employ nearly 212,000 artisans and offer over 35,000 distinct products.

Clusters: Major clusters include Surat, Bareilly, Varanasi, Agra, Hyderabad, Lucknow, Chennai, and Mumbai. The majority of manufacturing units are located in rural and small-town areas, presenting significant market potential both domestically and internationally.

Market Size and Projections

Current Market Size: The handicrafts market in India reached **US\$ 4,277.5 million** in 2023.

Projected Market Size: It is expected to grow to **US\$ 7,817.8 million** by 2032.

CAGR: The market is projected to achieve a compound annual growth rate (CAGR) of **6.9%** during the period from 2023 to 2032, according to forecasts by IMARC Group.

PM VISHWAKARMA SCHEME

PM Vishwakarma Scheme: PM Vishwakarma Scheme Launched on September 17, 2023, the PM Vishwakarma Scheme is a Central Sector initiative aimed at providing comprehensive support to artisans and craftspeople across 18 traditional trades.

KEY FACTS ABOUT THE PM VISHWAKARMA SCHEME (2023)

- **Type:** Central Sector Initiative
- **Objective:** Provide comprehensive support to artisans and craftspeople
- **Focus:** Empower individuals engaged in traditional trades
- **Coverage:** Supports artisans across 18 specific

trades

- **Aim:** Recognize and enhance the skills of those working with hands and tools

The PM Vishwakarma Scheme offers a range of benefits to artisans and craftspeople:

- **Recognition:** Artisans will receive a PM Vishwakarma certificate and ID card to acknowledge their skills and contributions.
- **Skill Upgradation:** Beneficiaries can undergo Basic Training for 5-7 days and Advanced Training for 15 days or more, with a stipend of ₹500 per day.
- **Toolkit Incentive:** At the start of Basic Skill Training, artisans will receive toolkit incentives of up to ₹15,000 in the form of e-vouchers.
- **Credit Support:** The scheme provides collateral-free 'Enterprise Development Loans' of up to ₹3 lakh, disbursed in two phases (₹1 lakh and ₹2 lakh).
- **Incentive for Digital Transactions:** Artisans will earn ₹1 for each digital transaction, up to a maximum of 100 transactions per month, credited to their accounts.
- **Marketing Support:** The scheme provides marketing assistance, including quality certification, branding, onboarding on e-commerce platforms like GeM, and various advertising and publicity efforts to enhance market access and integrate artisans into the value chain.

SIGNIFICANCE OF THE PM VISHWAKARMA YOJANA

Samman (Respect):

Recognition of Traditional Crafts: The scheme elevates the status of traditional artisans, honoring their skills and cultural heritage.

Cultural Pride: Promoting traditional crafts, fosters a sense of pride and appreciation within communities for their craftsmanship.

Focus on Inclusivity: Target beneficiaries primarily from scheduled castes and tribes, promoting economic empowerment among marginalized communities.

SAMARTHYA (CAPABILITY):

Skill Development: Initiatives like the Acharya Chanakya Skill Development Center provide free training, enhancing artisans' skills to meet contemporary demands.

Access to Modern Tools: Distribution of modern machinery and toolkits boosts productivity and efficiency in traditional occupations, empowering artisans to compete in the market.

Empowerment of Artisans: Encourages artisans to transition into entrepreneurship, fostering self-reliance and business acumen.

SAMRIDHI (PROSPERITY):

Financial Support: The loan scheme facilitates access to capital, enabling artisans to invest in their businesses and expand their operations.



CHALLENGES FACED BY ARTISANS

1. **Economic Struggles:** Economic instability is a major challenge for artisans. Many face financial difficulties, struggling to make a living due to fluctuating market demands, insufficient compensation for their work, and limited access to profitable markets
2. **Technological Shifts:** The rise of technology and mechanization presents a significant threat to traditional crafts. Mass-produced, machine-made goods frequently overshadow the

uniqueness of handmade items.

3. **Limited Market Access:** Despite the cultural richness of their crafts, artisans often have limited exposure to broader markets. Remote locations, poor infrastructure, and inadequate marketing options restrict their access to consumers who appreciate their work.
4. **Skill Disparity:** Traditional craftsmanship in India is often handed down through generations, but modernization and evolving societal trends have prompted many young people to pursue alternative livelihoods. This shift has resulted in a diminishing pool of skilled artisans, threatening the preservation of ancient crafts.
5. **Aging Artisans:** Many artisans currently practicing these traditional skills are aging, leading to concerns about the continuity of their crafts. As the younger generation moves away from these practices, the risk of losing valuable cultural heritage increases significantly.
6. **Lack of Training and Resources:** Many artisans lack access to training programs that could help them enhance their skills or learn new techniques. Additionally, limited access to modern tools and materials hinders their ability to innovate and improve the quality of their work.
7. **Cultural and Social Pressures:** Artisans face social pressures and cultural changes that can weaken their traditional practices. Urbanization and shifting lifestyles can reduce the demand for traditional crafts, making it harder for artisans to sustain their work in a changing society.

WAY FORWARDS

- **Technological Integration:** Leveraging technology while maintaining traditional methods can modernize the handicraft sector. This includes using tech for design, marketing, and production to enhance artisans' market access and visibility globally.
- **Sustainable Innovations:** Focusing on sustainability can transform the handicraft sector. Promoting eco-friendly practices and recycled materials will attract consumers who prioritize ethically produced goods.
- **Skill Development and Education:** Ensuring the survival of traditional crafts depends on transferring skills to younger generations. Im-

plementing skill development programs and integrating artisanal knowledge into educational curricula is vital.

- **Market Accessibility and Fair Trade:** Improving market access for artisans is essential. Initiatives that promote fair trade, develop online platforms, and support cooperatives can ensure fair compensation and broader reach.
- **Promotion and Awareness:** Increasing awareness of the cultural value of artisanal products is crucial. Collaborative efforts among governments, NGOs, educational institutions, and media can significantly enhance craft promotion.
- **Diversification of Products:** Encouraging artisans to diversify their product lines can meet changing consumer preferences, creating new markets and opportunities for growth.
- **Collaborative Networks:** Establishing networks among artisans can facilitate knowledge sharing, resource pooling, and collective bargaining, strengthening their position in the market.
- **Consumer Education:** Educating consumers about the importance of supporting traditional crafts can foster a more dedicated customer base, enhancing demand for artisanal products.

CONCLUSION:

Preserving India's traditional handicrafts is essential not only as a cultural responsibility but also for fostering sustainable development. The journey of these artisanal crafts—from skilled hands to global markets—embodies resilience and artistry. To secure their future, we must collectively commit to their preservation by embracing technology, promoting skill development, and advocating sustainable practices. This approach will cultivate an ecosystem that values and sustains these timeless creations, ensuring they thrive for generations to come.

Prelims Question:

Q. With reference to the PM Vishavakarma Scheme Consider the following statement:

1. The PM Vishavarma scheme aims to financially

support traditional artisans.

2. This is a central Sector scheme entirely funded by the Government of India
3. The schemes provide training to all traditional artisans and craftsmen in India.

How many of the above-given statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

ANSWER: B

Mains Question:

In what ways do the benefits and challenges of globalization manifest differently among various artisan communities in India, and how do these differences affect their social cohesion and economic viability? (250 words 15 marks)