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DAILY EDITORIAL ANALYSIS

TOPIC

INDIA'S MANUFACTURING REVIVAL: FROM CAPACITY CREATION TO GLOBAL CAPABILITY

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Context

- **India's manufacturing sector** is regaining momentum amid geopolitical shifts that are reshaping global production networks and offers a solid foundation for the next phase of industrial growth.
- As the **Economic Survey** notes, sustaining this revival will require stronger competitiveness and deeper integration into global value chains.

About India's Manufacturing Sector

- India's manufacturing industry is a **critical pillar of the economy**, contributing significantly to **employment, exports, and overall growth.**
- In recent years, the sector has regained momentum as global supply chains diversify and countries seek alternatives to concentrated production hubs.
- It has created **an opportunity for India** to position itself as a **reliable and competitive manufacturing destination.**

Sectoral Progress and Value Chain Upgrading

- **Electronics and Semiconductors: Electronics manufacturing** has expanded rapidly, with production increasing nearly six-fold and exports almost eight-fold over the past decade.
- **Pharmaceuticals and Medical Devices:** It has established India as one of the world's largest suppliers of generic medicines and vaccines, combining scale with technology intensity, with India supplying over half of global vaccine demand and a large share of generic medicines.
- **Automobiles and Auto Components:** India is a major producer of **two-wheelers, passenger vehicles, and commercial vehicles**, supported by a **strong auto-component ecosystem.**
  - The sector is undergoing a transition towards electric mobility, advanced electronics, and cleaner technologies.
- **Steel, Metals, and Heavy Industry:** Steel and metals form the backbone of India's industrial base, supporting infrastructure, construction, and capital goods manufacturing.
  - India ranks among the world's largest steel producers, benefiting from domestic demand and resource availability.
- **Textiles and Apparel:** Textiles and apparel remain labour-intensive and export-oriented, providing employment to millions.
  - India has strengths across the value chain, from fibre and yarn to finished garments.
  - Recent policy support aims to improve scale, modernise production, and enhance competitiveness against low-cost global producers.
- **Renewable Energy and Emerging Technologies:** Manufacturing linked to renewable energy, such as solar modules, wind components, and energy storage systems is gaining momentum as India expands its clean energy capacity.
  - It aligns industrial growth with climate goals and offers opportunities for technology learning, scale, and export potential.
  - Emerging areas such as **green hydrogen equipment** and **advanced materials** are beginning to attract investment.
- **MSMEs Across Sectors:** Micro, Small and Medium Enterprises (MSMEs) contribute substantially to employment and exports but **face challenges** related to **finance, technology adoption, and skill development.**
  - Deeper integration of MSMEs into strategic value chains, as suppliers of components and specialised services will be essential for inclusive and sustainable industrial growth.

Concerns & Issues Around India's Manufacturing Sector

- **Limited Share in GDP and Employment:** Manufacturing's share in India's GDP has remained **around 15–17% for years,** lower than that of many industrialised and emerging economies.

- It has not generated employment at the scale needed to absorb India's growing workforce, raising concerns about jobless or low-quality job growth.

- **Incomplete Integration into Global Value Chains:** India remains underrepresented in global manufacturing value chains, especially in high-technology and complex products.
  - India still relies heavily on imported intermediates, limiting domestic value addition and reducing resilience to global supply disruptions while exports have grown in sectors such as pharmaceuticals and electronics.
- **Infrastructure and Logistics Bottlenecks:** Although logistics efficiency has improved, costs remain high relative to some competitors.
  - Road transport continues to dominate freight movement, while railways and coastal shipping, more efficient for long-distance and bulk transport, are underutilised.
  - Congestion at ports, last-mile connectivity gaps, and uneven infrastructure quality across states add to operational inefficiencies.
- **High Cost of Doing Business at the Firm Level:** Formal ease-of-doing-business (EODB) reforms have improved regulations on paper, but firms often face delays in land acquisition, utility connections, environmental clearances, and local approvals.
  - Unpredictability in implementation and slow dispute resolution increase project timelines and discourage large-scale investments, particularly in capital-intensive manufacturing.
- **Weak R&D and Technology Absorption:** India's manufacturing sector suffers from relatively low investment in research and development.
  - Industry–academia linkages remain limited, and many firms struggle to absorb advanced technologies.
  - It constrains productivity growth and makes it difficult to compete in technology-intensive and precision manufacturing segments.
- **Skill Mismatches and Labour Constraints:** While India has a large labour pool, skill mismatches persist.
  - Many manufacturing firms face shortages of trained technicians, engineers, and shop-floor supervisors
  - Existing skilling systems often lag behind industry needs, especially in advanced manufacturing, automation, and digital production technologies.
- **Challenges Faced by Micro, Small and Medium Enterprises (MSMEs):** Limited access to affordable credit, low technology adoption, inadequate quality infrastructure, and weak integration into large supply chains restrict their ability to scale and compete globally.
- **Fragmented Industrial Clusters:** Industrial clusters in India are often small and fragmented, limiting agglomeration benefits such as shared infrastructure, supplier networks, and knowledge spillovers.
  - Without scale and deeper integration, clusters struggle to deliver sustained productivity and capability gains.
- **Regulatory Uncertainty and State-Level Variations:** Manufacturing outcomes are increasingly shaped by state and local governments.
  - Differences in land policies, labour regulations, power tariffs, and compliance processes across states create uncertainty for investors.
  - Frequent policy changes or inconsistent enforcement further raise risk perceptions.
- **Quality and Standards Compliance:** While **Quality Control Orders (QCO)** and standards enforcement can strengthen competitiveness, poorly calibrated implementation risks increasing compliance costs, especially for MSMEs.
  - Inadequate testing and certification infrastructure can delay production and disrupt supply chains.

Policy Push & Efforts in India's Manufacturing Sector

- **Make in India:** It sought to position India as a global manufacturing hub by encouraging domestic and foreign investment, improving ease of doing business, and identifying priority sectors.
  - It helped raise manufacturing's visibility in policymaking and laid the groundwork for subsequent reforms and incentive-based schemes.
- **Production Linked Incentive (PLI) Schemes:** These schemes provide incentives linked directly to incremental production and sales, encouraging firms to scale up manufacturing in India.

- PLI programmes cover sectors such as electronics, pharmaceuticals, automobiles, solar modules, textiles, and advanced chemistry cell batteries.
- PLIs aim to embed Indian firms more deeply into global value chains by rewarding scale, efficiency, and exports.

- **Infrastructure-Led Industrial Growth:** Programmes such as **PM Gati Shakti** and **National Logistics Policy** focus on integrated planning across railways, roads, ports, airports, and logistics parks.
  - Dedicated freight corridors, industrial corridors, and industrial parks are being developed to reduce logistics costs and improve connectivity between production centres and markets.
  - India has made steady progress, with logistics costs declining to **around 7.97% of GDP in FY 2023–24**, comparable with global benchmarks.
- **Ease of Doing Business and Regulatory Reforms:** These include simplification of company laws, rationalisation of labour codes, faster insolvency resolution, and digitisation of approvals and filings.
  - Policy efforts are increasingly focused on implementation quality—speed, predictability, and consistency at the state and local levels while formal regulations have improved.

Way Forward: Towards a Long-Term Manufacturing Strategy

- The proposed **National Manufacturing Mission** reflects an effort to align incentives, infrastructure, skilling, and innovation under a coherent long-term industrial strategy.

- The objective is not only to increase output, but to build deep technological capabilities, strengthen R&D ecosystems, and develop globally competitive firms in strategically important sectors.

Source: IE

Daily Mains Practice Question

[Q] Discuss the role of industrial policy, technology adoption, infrastructure and logistics, and MSMEs in enabling India to move towards higher value-added and strategically important manufacturing sectors.

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