



# Indian Industries : Issues, Challenges, and Opportunities

*The sheer size and diversity of enterprises in India does not allow for a one-size-fits-all approach to regulation and management of businesses. The National Manufacturing Mission seeks to integrate policies, improve governance and boost a sustainable manufacturing ecosystem to transform India into a 21<sup>st</sup>-century industrial powerhouse.*

**I**ndian industry has undergone significant transformation from the pre-independence era of small-scale handicrafts and textiles to the post-independence, State-led industrialisation. Post-independence industrial policies and liberalisation since 1991 have transformed India from

a largely agrarian economy to an emerging industrial hub. Industries have expanded and diversified rapidly, joining the global supply chains with remarkable resilience in the face of global competition.

Since the 1990s, India's industrial landscape has evolved from a state-controlled, protected economy



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## PM Narendra Modi launches Research Development and Innovation Scheme

### Key objectives:

- Support **acquisition** of **technologies** which are **critical** or of **high strategic importance**
- Facilitate setting up of a **Deep-Tech Fund of Funds**



to a liberalised, globally integrated, technology-driven system. It now emphasises innovation, sustainability, and competitiveness, positioning India as a rising industrial and service powerhouse. Increasing the share of high-tech manufacturing, increasing employment intensity, decreasing import intensity of exports and pursuing environment-friendly, sustainable development based on local resources and skill development are key priorities of policy planners and industry captains. Abundant natural resources and a youthful workforce provide fertile ground for sustainable growth and innovation.

The industrial sector (mining/quarrying, manufacturing, electricity/gas/water utilities and construction) has been contributing approximately 28-30 per cent share in our GDP (manufacturing approximately 14-16 per cent and construction approximately 8-10 per cent) for the last 3 decades. In a major structural transformation since Independence, the share of the primary sector (agriculture & allied activities) has shrunk from approximately 50 per cent to approximately 15 per cent with a corresponding increase in the tertiary/services sector. Our share in global manufacturing output is about 2 per cent. India contributes to less than 2 per cent of the global manufacturing. These shares have remained unchanged for a considerable period, a characteristic that poses key policy challenge for growth.

Today, Indian industries span textiles, automobiles, pharmaceuticals, IT, electronics, and renewable energy, catering to domestic and international markets. However, industrial growth is uneven across industries and regions even as systemic issues and challenges are being addressed and new opportunities are visible for sustainable industrial growth from technology adoption, policy support, and global demand shifts.

The Industrial Policy of 1991 marked a major shift by deregulating the industrial sector, abolishing licensing requirements for most industries, enabling privatisation and allowing foreign direct investment in many areas to increase efficiency, competitiveness, and integration with the global economy.

The reforms ushered in increased competition, efficiency, and modernisation. Accelerated growth in capital-intensive and import-intensive industries and an increase in exports have been marked trends since the 1990s.

Prolonged stagnation in the share of manufacturing (targeted to be raised to 25 per cent by 2025 as per the National Manufacturing Policy 2011); a steady increase in import-intensity; steady decline in labour-intensity and almost half of manufacturing output being contributed by a single industry (automobiles) have been matters of concern for long.

Aggressive trade unionism, air/water pollution, clean quality of water/power supply and law &

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Startups + Innovation + Policy Support = Future-Ready  
Semiconductor chip design Ecosystem



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order situation, militancy/security issues and cheap imports have been major reasons for low/slow/negative industrialisation in particular subsectors (pharmaceuticals, textiles, leather, metals and chemical processing industries) and geographies like border states. Many enterprises, across public and private sectors, struggled to remain viable under evolving economic and regulatory conditions.

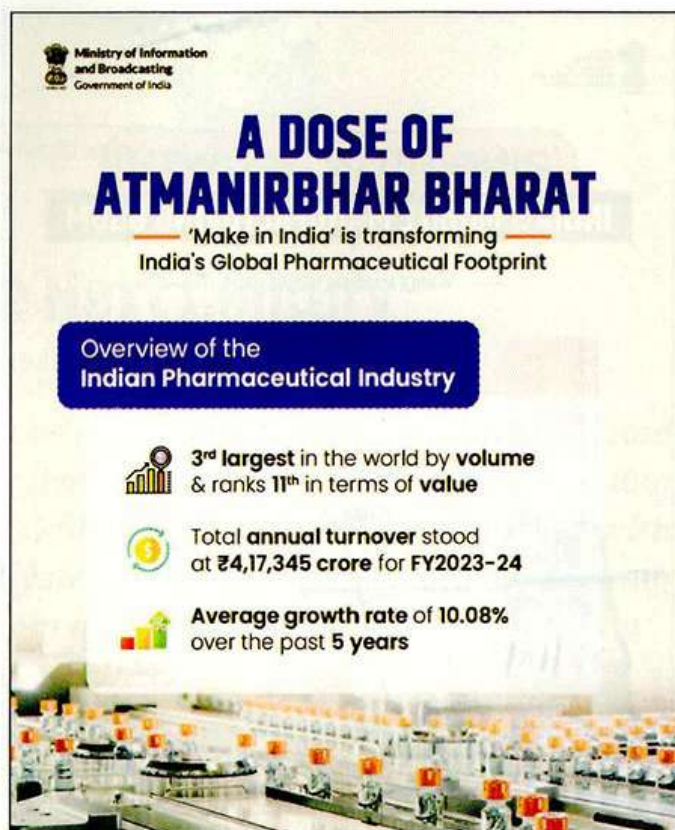
The phasing out of several Pharma PSUs—Indian Drugs & Pharmaceuticals Ltd, Rajasthan Drugs & Pharmaceuticals Ltd, Hindustan Antibiotics Ltd and Bengal Chemicals & Pharmaceuticals Ltd has coincided with a growing reliance on imported bulk drugs. The Sterlite Copper plant in Tamil Nadu has been closed since May 2018 following environmental concerns and public protests, forcing dependence on imported copper.

The 'Services' sector is leading in employment generation, but over 85 per cent of 'workers' are unorganised workers outside the full-scope social safety net. Efforts are afoot to expand their social security and enlist them in general welfare schemes.

The 'Industrial' sector is highly fragmented, with about 7 crore MSMEs (Micro, Small, and Medium Enterprises) accounting for approximately 99 per cent of all business enterprises. This promotes entrepreneurship and flexibility but also leads to low economies of scale, higher production costs, quality issues and weak bargaining power in global markets. There is a real policy dilemma here. To build globally competitive products, we need large-scale production and a reduction in the variety of standards and specifications, but that inevitably leads to reduced employment intensity, the emergence of monopolies and attendant risks.

The sheer size and diversity of enterprises in India does not allow for a one-size-fits-all approach to regulation and management of businesses. Even after recent drives to weed out bogus companies created for money laundering, tax evasion or other questionable motives, one-third of about 29 lakh registered companies are still inactive. This gives an idea of the stress on the regulatory system.

High logistics costs account for around 14 per cent of GDP, compared to 8–10 per cent in developed economies. Power shortages and unreliable energy supply hinder manufacturing efficiency, particularly for energy-intensive industries. Poor transport connectivity increases logistics costs, reduces

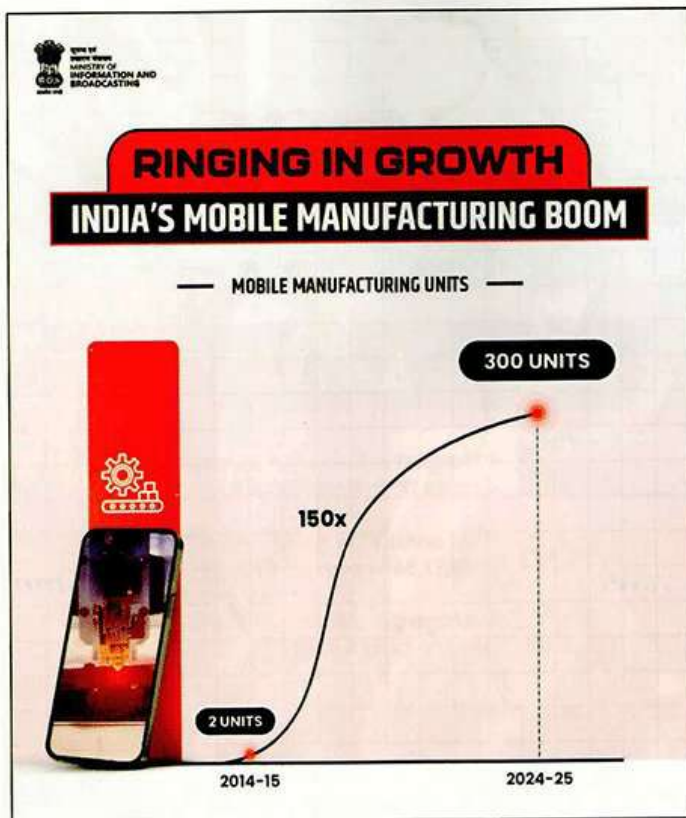


competitiveness. In recent years there has been significant investment in improving rail/road/air connectivity between industrial hubs, transport corridors and ports, and markets to accelerate the pace of manufacturing expansion of roads, railways, air and sea ports and power supply. The ongoing National Infrastructure Pipeline, the development of industrial corridors such as the Delhi-Mumbai Industrial Corridor, the *Bharatmala* Project aiming to connect 550 District Headquarters with a minimum 4-lane highway, *Sagarmala* (for maritime and port infrastructure development), Dedicated Freight Corridors, the complete electrification of Railways and the targeted expansion to 10,000 MTPA (Million Tonnes Per Annum) seaport capacity are all part of a massive effort at infrastructure development.

Industry faces a high burden of cross-subsidies. Railways use increased tariffs on goods hauled to finance the losses in the passenger segment of their business. The industrial power faces higher tariffs to enable lower tariffs on the agriculture and household sectors. These cross-subsidies add to the cost to industries and have led to substantial diversion of rail freight to road freight and captive power generation, having wider economic implications.

The fourth industrial revolution (Industry 4.0) poses both opportunities and challenges for Indian





industries. Going beyond traditional automation, artificial intelligence, robotics, the Internet of Things (IoT), and advanced analytics are transforming production processes to enhance productivity, reduce costs, and enable innovation-driven growth. We need to adapt to these technologies or risk obsolescence. Adoption is costly and requires skilled labour and significant investment in R&D. Industries such as pharmaceuticals, electronics, renewable energy, and aerospace have significant potential for technology-led expansion.

Customers are looking forward to not just buying products but complete system solutions to meet their functional requirements. The emergence of the shared economy (lease/rent rather than buy/own) and changes in consumer behaviour is having major impact on business models of industries. Additive manufacturing technologies (3D printing) allow customisation of consumer products at a large-scale catering to highly personalised needs of discerning customers. It enables decentralised, small-scale production reducing the need for mass production under one roof of traditional, polluting factories.

Demographic Dividend offers a big opportunity for Indian industries. We have one of the youngest populations in the world, offering a large, cost-competitive labour pool as well as a large consumer

base capable of sustaining industrial growth for decades with right-skilling and policy support.

Mass production based on local resources for domestic consumers and an increasing switch to green/sustainable products present new opportunities in electric vehicles, energy storage, renewable energy (solar/wind), and environmentally friendly manufacturing practices. Indian industries can leverage innovation in these areas to gain a competitive advantage while addressing environmental challenges.

The Production Linked Incentive (PLI) scheme launched in 2020 covers 14 sectors attracting investments worth Rs 1.76 lakh crore, with total sales over Rs 16.5 lakh crore by mid-2025, creating over 12 lakh direct/indirect jobs.

The electronics and defence industries hold great potential to ramp up the value-addition chain. PLI aligns closely with the Semiconductor Mission backed by a Rs 76,000 crore package to support investments in this subsector. Steady increase in defence manufacturing and export in recent years boosted our manufacturing growth.

For capital-intensive industries like Defence, domestic demand is insufficient to allow large-scale production at a competitive cost. Export demand is also needed. It is a challenge amidst stiff competition, global uncertainties and the collapse of rule-based multilateral trade regimes.

In the pursuit of national interests, international relations are rarely defined by permanent friendships or immutable enmities. We need not be distracted by near-term surprises and continue to build up a skilled workforce and robust infrastructure. Policy support and industry actions must sync to create and fulfil huge domestic demand. We must build the India brand as synonymous with quality and let the substandard business units bringing shame to the country perish.

We are a service-led/consumption-led economy moving from 10<sup>th</sup> to 4<sup>th</sup> largest during the last 10 years with strong integration into global value chains. Huge investments in physical and digital infrastructure and tax reforms have nurtured a conducive business environment. The National Manufacturing Mission seeks to integrate policies, improve governance and boost a sustainable manufacturing ecosystem to transform India into a 21<sup>st</sup>-century industrial powerhouse. □