

# The Rise of Industrial Clusters: How Strategic Infrastructure Drives Regional Development

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Industrial clusters have emerged as powerful engines of economic growth in India. The country's economic journey is increasingly tied to the success of its industrial clusters—concentrated regions of interconnected industries, suppliers and associated institutions.

These clusters act as a catalyst of regional development, creating jobs, fostering innovation, and bolstering economic growth. With an eye on achieving a \$30 trillion economy by 2047 under the Viksit Bharat vision, India is making significant investments in strategic infrastructure to harness the transformative power of industrial clusters.

These strategic industry clusters, backed by robust infrastructure, are set to play a pivotal role in achieving this goal. With investments like the Rs 28,602 crore for 12 new industrial cities under the National Industrial Corridor Development Programme (NICDP), India is creating an ecosystem for inclusive and sustainable growth.

Besides, India's commitment to infrastructure-led growth is evident through initiatives like the National Infrastructure Pipeline (NIP) launched in 2020, which envisions a massive investment of Rs 111 lakh crore over 2020–2025, with an annual average outlay of Rs 22 lakh crore.

These investments, complemented by targeted Public-Private Partnerships (PPPs), are critical for creation of flourishing industrial clusters and realising the nation's aspirations, including achieving the interim milestone of a \$5 trillion economy by 2025.

## Industrial clusters as growth catalysts

Industrial clusters leverage economies of scale, reduce logistical inefficiencies, and create synergies that enhance productivity and efficiency. By co-locating industries, these clusters attract Foreign Direct Investment (FDI) through ready-to-use infrastructure, clear policy frameworks, and global competitiveness.

The Economic Survey 2022-23 highlighted the critical role of clusters in integrating urban and rural centres, a goal further amplified by initiatives like the Production Linked Incentive (PLI) scheme and PM Gati Shakti.

India's industrial policy has increasingly embraced this concept, leveraging strategic infrastructure projects to bolster manufacturing and economic activity. From the Delhi-Mumbai Industrial Corridor (DMIC) to the Gujarat International Finance Tec-City (GIFT), industrial clusters have played a pivotal role in transforming regional economies and positioning India as a manufacturing hub.

Industrial clusters create synergies that enhance the manufacturing ecosystem. By co-locating industries, governments and businesses can drive efficiencies in resource utilisation, skill development, and technology adoption. For instance, Tamil Nadu's automobile hub, encompassing Chennai and its surrounding areas, is often referred to as the 'Detroit of Asia.' Housing major manufacturers like Hyundai, BMW, and Daimler, this cluster benefits from a robust supply chain network and a pool of skilled labour, driving India's automobile exports.

Similarly, Gujarat's pharmaceutical cluster, known as the 'Pharma hub,' accounts for nearly 40% of India's pharmaceutical production. Its success is attributed to seamless access to raw materials, regulatory support, and cutting-edge research facilities, illustrating how clustering enhances industrial output and global competitiveness.

One of the primary advantages of industrial clusters is the optimisation of logistics. Concentrating industries within a region minimises transportation costs and transit times. The government's investment in dedicated freight corridors (DFCs) has further catalysed this advantage.

The Western DFC, part of the Delhi-Mumbai Industrial Corridor, spans 1,504 kilometers and connects India's most vibrant industrial zones. It has significantly reduced transit times for goods, boosting the efficiency of manufacturing clusters along its route. Industries in these regions now experience faster raw material inflow and finished goods dispatch, enhancing their productivity and market reach.

The development of port-based industrial clusters is another example. For instance, the Kandla Special Economic Zone (KASEZ) in Gujarat benefits from its proximity to the Kandla Port, reducing logistical challenges for exporters and attracting investment from global players.

Industrial clusters are also instrumental in bridging the rural-urban divide, creating employment opportunities, and uplifting regional economies. By focusing on backward regions, these clusters help reduce economic disparities and bring development to underserved areas.

One notable example is the Koraput-Rayagada industrial corridor in Odisha, where the focus on aluminum and steel industries has led to socio-economic upliftment. Local communities have benefited from employment opportunities, skill development programs, and improved infrastructure, showcasing the transformative power of industrial clusters.

State-specific policies have further catalysed cluster development. Karnataka's IT cluster in Bengaluru, powered by research institutions, skilled talent, and supportive policies, has established itself as a global technology hub.

## Challenges and the way forward

Despite their transformative potential, India's industrial clusters face challenges like land acquisition, skill shortages, infrastructural gaps, and environmental concerns. Bridging these gaps require a concerted effort involving policy reforms, enhanced infrastructure investment, and effective collaboration between the public and private sectors.

To realise the vision of a Viksit Bharat, India must address the bottlenecks while amplifying the impact of industrial clusters. As India ramps up its infrastructure push, industrial clusters will continue to be at the heart of its economic transformation. These clusters will be at the forefront of this transformation, enabled by initiatives like the NIP and strategic corridors such as the Vizag-Chennai Industrial Corridor.

The rise of industrial clusters embodies a vision of a self-reliant and inclusive India, firmly on the path to a \$30 trillion economy by 2047. These clusters not only signify economic growth but also a commitment to sustainability, innovation, and equitable development, ensuring India's place as a global economic leader.