



India's Infrastructural Revolution

15th August, 2025

Prime Minister Narendra Modi at his Independence Day address on 15th August, 2025:

- I had spoken about Panch Prana from this Red Fort.
- To build a developed India, we will neither stop nor bow down, we will keep working hard and we will build a developed India before our eyes in 2047.

Introduction

In the last eleven years, India has embarked on an ambitious journey to reshape its physical and digital landscape - laying down not just roads and rails, but the very framework of a modern, connected nation. Infrastructure and logistics have evolved from bottlenecks to bridges of opportunity, powering economic growth and urban transformation.

At the heart of this evolution are initiatives like PM GatiShakti, and UDAN, which are expanding highways, modernizing ports, and bringing air travel for common people. But the transformation isn't confined to transit - it pulses through the veins of India's cities.

The Smart Cities Mission is reimagining urban living by integrating technology, sustainability, and citizen-centric design. Complementing this is AMRUT (Atal Mission for Rejuvenation and Urban Transformation), which is revolutionising urban infrastructure.

Together, these initiatives have not only built infrastructure but cultivated resilience, inclusivity, and innovation. This isn't just development, it's a symphony of all verticals of infrastructure. As India strides into the future, its infrastructure is no longer just a foundation - it's a launchpad.

AMRUT: Reimagining Urban Life

Launched on 25th June 2015, Atal Mission for Rejuvenation and Urban Transformation (AMRUT) aims to improve urban living by improving essential services like water supply, sewerage, transport, and green spaces.

AMRUT 2.0 - Launched on 1st October 2021, it extends to all Urban Local Bodies (ULBs) with the objective of ensuring water security and promoting self-reliance in cities. A major target is to achieve universal sewerage and septage management across the original 500 AMRUT cities.

Key Milestones

- ❖ Overall ₹1.12 lakh crore worth of works completed.
- ❖ 2.03 crore tap connections and 1.50 crore sewer connections provided in last 10 years.
- Annual power saving of 666 crore kWh.
- ❖ Reducing 46 lakh tonnes of CO₂ annually.
- ❖ 3599 cities implemented Online building Permission System.
- ❖ ₹4,984 crore raised by 13 ULBs through municipal bonds.

Smart Cities Mission: Connected, Clean and Citizen-Centric

Launched in 2015, the Smart Cities Mission (SCM) aims a dynamic urban future for India. Its ambition is to shape cities that thrive economically, embrace inclusivity, and nurture the environment. Through strategic investments in infrastructure, governance, and social progress, SCM is driving a transformative shift in how urban India lives, works, and grows.

Key Milestones

- ◆ 95% of the total 8,063 projects under Smart Cities Mission completed, with ₹1.64 lakh crore invested as on 11 July, 2025.
- Area-based and pan-city approaches in Cities to improve infrastructure and services.
- ❖ All 100 cities have Integrated Command and Control Centres using tech like Artificial Intelligence and Internet of Things for better city management.
- Thousands of smart roads, cycle tracks, classrooms, and health centres have been built.
- ❖ Initiatives like Cycles4Change and Streets4People promotes open spaces and inclusivity.

Transport: Accelerating India's Connectivity

Launched in 2021, the PM GatiShakti National Master Plan is an initiative to boost multimodal infrastructure across India's economic hubs. It coordinates development across seven core sectors - rail, road, ports, waterways, airports, mass transit, and logistics.

Roads and Highways - The Indian infrastructure is contributing to development of highway and road infrastructure projects by focusing on the movement of goods and passengers across the country. Key projects include new highway construction, building and upgrading Economic Corridors, feeder routes, and roads along international borders, coastal areas, and new Greenfield expressways.

Key Milestones

- ❖ National Highways network has expanded from 91,287 km in 2014 to 1,46,342 km in 2025.
- ❖ 7.8 lakh km rural roads completed (2014–2025).
- ❖ Access Controlled National High-Speed Corridors (HSC)/ Expressways increased from 93 km in 2014 to 2636 km (operationalized as on 30.06.2025).
- ❖ 142% growth in National Highway construction (*km/day*) since 2014.
- ❖ Length of annual National Highway construction climbed from 4410 km in 2014-15 to 10,660 km.
- ❖ Eastern Peripheral Expressway, India's first solar-powered expressway, completed in just 500 days.
- ❖ Chenab bridge world's highest railway arch bridge and Anji bridge India's first cable-stayed rail bridge inaugurated on 6th June, 2025.
- ➤ Railways Indian Railways has seen remarkable growth, with expanded electrification and modernization of infrastructure and services. Initiatives like automatic signaling, the rollout of Vande Bharat trains, and enhanced freight corridors have positioned the railways as a key driver of India's economic and logistical transformation.

Key Milestones

- ❖ 144 Vande Bharat trains running as of 31st July, 2025.
- ❖ 46,900 km of rail electrification completed since 2014.
- Safety: Kavach deployed on key routes.
- Rising export of India's Rail Products.

- ❖ Over 78% of Railway tracks upgraded for sectional speed of 110 kmph and above.
- ➤ Metro India's metro rail network has expanded rapidly, with services now operational or under construction in dozens of cities. This growth reflects a strong push toward modern urban mobility, improved connectivity, and sustainable public transport solutions.

Key Milestones

- ❖ India's metro network grew from 248 km (2014) to 1,013 km (2025).
- ❖ Daily ridership grown from 28 lakh in 2013-14 to 1.12 crores.
- ❖ India has invested ₹2.5 lakh crore (US\$ 28.86 billion) and built over 2,000 metro coaches domestically.
- ❖ Initiatives like Make in India, solar-powered stations, and driverless metros are driving clean, future-ready mobility.
- Ports and Waterways India's maritime infrastructure has witnessed significant growth through port modernization, improved coastal shipping, and development of inland waterways.

Key Milestones

- ❖ Port capacity doubled to 2,762 MMTPA since 2014.
- Overall vessel turnaround time improved from 93 to 48 hours.
- Sagarmala: 277 projects completed; Sagarmala 2.0 launched.
- Inland waterways cargo rose by 710% since 2014 (from 18 MMT to 146 MMT).
- ❖ Green Hydrogen hubs under development at 3 major ports in Kandla, Paradip and Tuticorin.
- > UDAAN: Regional Connectivity Scheme India's civil aviation sector has undergone a remarkable transformation, becoming more inclusive, accessible, and technologically advanced.

Key Milestones

- ❖ 92 airports operationalized under UDAN as on July, 2025.
- Over 1.53 crore passengers flown under regional connectivity till 30th June, 2025.

❖ Digi Yatra adopted in 24 airports; used over 5 crore times.

Logistics: Smart Logistics, Smarter Future

India's logistics sector has evolved into a more integrated, technology-driven ecosystem, supporting the country's economic growth. With policy reforms, digital platforms, and infrastructure upgrades, it is playing a vital role in manufacturing, e-commerce, and global trade.

- ❖ National Logistics Policy: Launched in September 2022, the National Logistics Policy (NLP) complements the National Manufacturing Policy (NMP) with a focus on streamlining logistics operations and cutting costs. Key digital reforms such as the Unified Logistics Interface Platform (ULIP) and the Logistics Data Bank (LDB) have been fully implemented to improve business efficiency and facilitate real-time tracking of containerized EXIM cargo.
- Multi Modal Logistics Parks (MMLPs): These Parks are being developed to integrate warehousing, storage, and transport services at strategic hubs across India. A total of 35 locations—including Chennai, Bengaluru, Nagpur, and Indore—have been approved based on regional demand, with contributions from both public and private sectors. Five of these parks are projected to be operational by 2027, aiming to enhance logistics efficiency and reduce supply chain costs for a more business-friendly ecosystem.
- ❖ Logistics Ease Across Different States (LEADS): This initiative ranks states on logistics efficiency based on infrastructure, services, and regulatory environment. It promotes healthy competition and guides policy reforms. It helps align state logistics strategies with national development goals.
- ❖ Sustainability: A Freight Greenhouse Gas (GHG) Calculator has been introduced by DPIIT to measure and compare transportation costs and emissions, promoting ecofriendly logistics choices. To further support sustainability, Indian Railways launched Rail Green Points, enabling freight customers to track their potential carbon savings.
- ❖ Dedicated Freight Corridors (DFC): The Ministry of Railways is developing two Dedicated Freight Corridors—Eastern (Ludhiana to Sonnagar) and Western (JNPT to Dadri) to handle heavy freight and ease pressure on passenger routes. Designed to cut transport costs and boost energy efficiency, over 96% of the 2,843 km network is operational as of March 2025. These corridors are set to drive industrial growth and generate jobs in logistics and allied sectors.

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