

Transforming India through Connectivity

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“Connecting India” is more than just a catchphrase; it is a key tactic for promoting social cohesiveness, economic expansion, and national integration. In the past decade, the state of India’s urban infrastructure has seen a dramatic change. The Modi government’s persistent commitment to infrastructure development has fuelled unprecedented growth and connectivity throughout the nation. India’s economy has now touched USD 4.11 trillion and is the fastest-growing among the world’s trillion-dollar economies. This has been made possible by its vast and varied terrain, which calls for the development of strong transportation networks, contemporary energy systems, and dependable communication infrastructure to connect regions, connect urban and rural areas, and promote both domestic and international trade.

From ‘fragile five,’ to now the fifth-largest economy in the world with an annual growth rate of 8.4%, India is gearing up to achieve its economic potential, provide employment, and enhance the standard of living for its people by investing in infrastructure. Furthermore, infrastructure development is essential for empowering underprivileged populations, reducing socioeconomic gaps, and advancing environmental sustainability. “Connecting India” highlights the significance of developing resilient, inclusive, and forward-thinking infrastructure as India continues

on its road to prosperity, by creating the foundation for a wealthy and united country.

The Narendra Modi government has made infrastructure development a top priority because connecting India is a crucial component of raising the standard of living for its citizens. Accordingly, several ground-breaking projects to extend digital infrastructure, improve urban amenities, and update transportation networks are either ongoing, in the pipeline, or have been executed. This has become the defining feature of the government’s performance.

These initiatives, which range from the construction of road and rail networks, airports, canals, ropeway systems, and the manufacture of rail coaches, are focussed on promoting unbiased and viable growth throughout the country. These include, among others, the construction of the Atal Tunnel, the longest high-altitude tunnel in the world, and the Chenab Bridge, the world’s tallest railway bridge. From railways to waterways and roadways to airways, several programs and policies have been put into place to encourage infrastructure development.

Modernisation of Railways

The revamp of India’s railways has been a very visible feature of this change. This transformation has been characterised by imaginative and forward-looking leadership,

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increased budgetary allocations, and smart investments—indeed, a welcome change from earlier years when the rail network was both overburdened and overstretched. As per the data, 94% of railroads are now electrified, unattended rail crossings have been removed, and safety precautions have been strengthened. More than 25,000 km of additional railway tracks have been laid, outpacing the aggregate length of several wealthy nations. The passenger experience too has been completely transformed with the development of bio-toilets, internet-based reservation platforms, and GPS-based tracking systems, which have improved train travel efficiency, safety, cleanliness, and a more enjoyable journey experience.

With their improved passenger amenities, quicker acceleration, and increased safety features, the Vande Bharat trains mark a breakthrough in India's railway system. These trains provide a convenient and comfortable travel experience, with features including mobile charging ports for every seat, automatic plug doors, and reclining ergonomic seats. Over 100 Vande Bharat train services are running on Indian Railways as of January 31, 2024. Recently, on March 12, 2024, the Prime Minister flagged off ten new Vande Bharat trains.

During 2022–2023, the overall occupancy percentage was an outstanding 96.62%. With the goal of offering a more rapid, energy-efficient, and sustainable form of travel, Indian Railways is also rapidly completing the conversion of all Broad-Gauge tracks to electrical. Until 2014, only 21,801 km of the broad-gauge railway network were electrified. As of date, 61,508 km of the Indian Railways route's overall Broad-Gauge network of

65,556 km has been electrified, which is 93.83% of the total rail network. Replying to a question in the Lok Sabha, the Railways Minister, Shri Ashwini Vaishnaw, gave out the following long-term effects of the nation's railway electrification:

- A decrease in the emissions of carbon
- Increased capacity for haulage
- A green and clean form of transportation
- Reduced line haul costs
- Preserving valuable foreign currency for crude oil

India's railway stations are to be developed and modernised through the Amrit Bharat Station Scheme launched by the Modi Government, under which a total of 1318 stations have been chosen for reconstruction, which will be developed phase-wise using a long-term holistic strategy.

Urban commuting has been transformed by the expansion of India's Metro Rail network, which now has an operational network of 945 km as compared to 248 km in 2014. With almost 1 crore passengers using the system each day, Metro Rail plays a crucial role in enabling urban populations to have easy access to transit, as indicated by its growth. The Metro Rail network has grown from serving just 5 cities in 2014 to serving 21 cities nationwide, with 919 km of new lines being built in 26 new cities. Additionally, the country's dedication to improving regional connections and updating its transportation infrastructure is further demonstrated by the launch of India's first state-of-the-art Namo Bharat train, which is currently in operation on the Delhi-Meerut RRTS (Regional Rapid Transit System) track.

Roadways: The Road to Progress

In the last 10 years, India's highway and roadway networks have expanded and developed at an unprecedented rate. Initiatives like Bharatmala Pariyojana and the National Infrastructure Pipeline are attending to the needs of neglected regions, major cities, and popular tourist destinations. The Bharatmala Pariyojana aims to maximise the effectiveness of the nation's transportation of people and products. In the initial phase, 34,800 km of national highways are being constructed to overcome the obstacles caused by infrastructure gaps. Economic corridor development, feeder routes, inter corridor development, and national corridor efficiency improvement are the main elements of the Pariyojana. Over 55,000 km of new roadways have been built since 2014, demonstrating the current government's dedication to building more infrastructure. In addition to enhancing connectivity, initiatives like the PM Gati Shakti Yojana encourage integrated planning and execution of infrastructure projects and guarantee project completion on schedule by placing a high priority on multi-modal connectivity.

The Regional Rapid Transport System (RRTS) project is being designed in accordance with the Prime Minister's ambition to revolutionise regional connectivity in the nation through the establishment of new world-class transport infrastructure. RRTS is a brand-new semi-high-speed, high-frequency commuter rail system. A revolutionary regional development program, it has a design speed of 180 km/h and is intended to deliver high-speed trains for interstate travel every 15 minutes. The RRTS is a hybrid network that will include comprehensive

multi-modal connectivity with bus services, metro stations, railway stations, etc., as drafted under the PM Gati Shakti National Master Plan. These innovative regional transportation initiatives will further contribute to increased economic activity, better access to jobs, healthcare, and education, as well as a notable decrease in air pollution and traffic congestion. The Delhi-Ghaziabad-Meerut RRTS Corridor's 17-kilometre priority segment will link Sahibabad to "Duhai Depot," passing through the stations at Ghaziabad, Guldhar, and Duhai. The Prime Minister placed the foundation stone for the Delhi-Ghaziabad-Meerut corridor on March 8, 2019.

In the last two terms of PM Modi, India's national highway network has advanced remarkably, thanks to increased funding allocation and building speed. The budget for highways and road transportation has increased by 500% since 2014, which has significantly improved infrastructure development. In 2020–21, the rate of highway construction hit an astounding 37 km a day, setting a record for India's fastest highway construction.

Furthermore, the National Highway network has grown by 60%, from 91,287 km in 2014 to 1,46,145 km in 2023. The length of the 4-lane National Highway has also grown by 2.5 times, from 18,387 km in 2014 to 46,179 km in 2023. Added to that, the average construction rate of the National Highways has also increased from 12.1 km a day in 2014 to 28.3 km a day in 2024, an exceptional and outstanding increase of 143%.

Expansion of Airways and Airports

The civil aviation industry has also experienced

significant change, with a growing number of aircraft routes and airports nurturing accessibility and economic growth. India's aviation network is quickly expanding, with 158 airports in service and 84 more under development over the last ten years. As of March 13, 2024, over 1.36 crore people had flown. As a result of programs like UDAN (Ude Desh ka Aam Nagrik), which have improved local connectivity and ensured that even underdeveloped and rural regions are connected to the national airline network, the number of operational airports has exceeded twofold in the last ten years.

In 2023, the Ministry of Civil Aviation (MoCA) achieved a number of significant milestones as the aviation industry rapidly grew to new heights. The following list includes a few of MoCA's most notable accomplishments:

- 60 new Regional Connectivity Schemes (RCS) routes were launched between January 1, 2023, and December 21, 2023.
- Six airports have been operationalised: Rourkela, Hollongi, Jamshedpur, Cooch Behar, Utkela, and Shivamogga.
- In the nation's northeastern states, twelve new RCS routes were launched.
- UDAN 4.2 and 5.0 have awarded 154 new RCS routes.

The Digi Yatra is another milestone achieved by the Ministry of Civil Aviation. The goal of the Digi Yatra project is to use facial recognition technology (FRT) to process passengers at airports in a hassle-free and smooth manner. The project's primary idea is to allow any traveller to pass through different airport checkpoints using paperless, contactless processing that verifies identity using facial features. From anywhere, passengers can

sign up for the platform. The Digi Yatra app has been downloaded by more than 35 lakh users thus far. The Digi Yatra initiative has been introduced at thirteen airports: Bengaluru, Delhi, and Varanasi in 2022; Kolkata, Vijayawada, Hyderabad, and Pune in 2023; and six airports in August 2023: Mumbai, Jaipur, Ahmedabad, Cochin, Lucknow, and Guwahati. Over 91 lakh travellers have used the Digi Yatra service to pass through airports since it was introduced. Digi Yatra would eventually cover every airport in a systematic manner.

Waterways

India's waterways have experienced tremendous growth; the National Waterways Act of 2016 designated 111 waterways as National Waterways (NW), demonstrating the country's dedication to improving the infrastructure for inland water traffic. With this accomplishment, the nation's various areas will be better connected, trade will be encouraged, and the movement of people and products will be made easier. Initiatives like Sagarmala are lowering costs and advancing sustainable development by utilising India's extensive coastline, which is important for transportation and trade. The economic potential of once-neglected inland rivers is increasingly being realised through this revitalisation. The government is generating jobs, relieving pressure on the road and rail systems, reducing congestion, and encouraging environmental preservation.

On January 17, 2024, Shri Narendra Modi dedicated three significant infrastructure projects totaling over Rs 4,000 crore in Kochi, Kerala, under the Sagarmala Project. In his address, he mentioned "Sabka Prayas yields better results," emphasising

the double-digit yearly growth Indian ports have seen over the past ten years. He highlighted that ten years ago, ships had to wait at the ports, causing the unloading process to take a very long time. The Prime Minister stated, “Today, the situation has changed,” noting that India’s ship turnaround time has surpassed that of several affluent countries. The changes that have been implemented in the last ten years in the ports, shipping, and waterways sectors have increased employment possibilities and brought new investments to India’s ports. As mentioned by PM Modi, there are now 140% more seafarers in the nation as a result of the changes made to the regulations pertaining to Indian sailors. The Prime Minister said that using inland rivers has greatly increased both passenger and freight transportation inside the nation.

The Sagarmala Programme, initiated by the government, aims to promote port-led development, lower transportation costs, and boost economic growth. Projects from a variety of categories are included in the programme, including modernisation of already-existing ports and terminals, improvement of port connections, fishing harbours, technology and skill development centres, etc. Under the Sagarmala Programme, 839 projects with a combined investment value of about Rs. 5.8 lakh crore are scheduled for implementation. 241 projects worth around Rs. 1.22 lakh crore have been completed under the programme.

Conclusion

The capital investment allocation for infrastructure is being boosted by 33% in Budget 2023–24 to Rs. 10 lakh crore (USD 122 billion),

which is equivalent to 3.3% of GDP. A capital budget of Rs. 2.40 lakh crore (US\$ 29 billion) has been allocated for the railways as part of the Union Budget 2023–24. This is the largest spending to date and about nine times the outlay for 2013–14. The answer to India’s problems in the future lies in infrastructure development. Analysing the previous budget spending and allocation, it comes to light that the present government has been relying on the multiplier effect that we experience with infrastructure development. With the largest number of young people in the world, the problem of unemployment has been plaguing India, and job creation has become a major concern for the government as an economy and for the BJP as a political organisation going into elections. It is hence seen that the increased spending on infrastructure development is a bet that the government has taken for the election year. Previously, the centre and state governments relied on welfare spending during elections, but this has come to be one of the first times when the government has instead increased infrastructure spending by 11.1% for the period 2024-2030 in comparison to the period 2017-2023.

The Modi government has emphasised the significance of digital infrastructure in the nation’s urban transformation, along with physical infrastructure. Technology has been instrumental in increasing efficiency, increasing transparency, and simplifying urban services through the use of digital governance platforms and e-governance programs. Urban areas are becoming more responsive, connected, and citizen-centric by utilising digital technologies, empowering citizens, and promoting inclusive growth.

The country's infrastructure is expected to be the main driver of India's economic growth, which is shortly expected to reach USD 5 trillion. The increased expenditure is only anticipated to help close the investment deficit. "The budget's increase in capital investment outlay for the fourth time in a row will sustain the momentum the Indian economy is currently enjoying, stimulating private capital expenditure, driving economic growth, and increasing consumption," Neeraj Bansal, co-head and COO-India Global, KPMG in India, says. "Further emphasising efficient logistical development under the PM Gati Shakti initiative, three major railway corridors have been announced, which are expected to significantly enhance India's supply chain ecosystem."

The objective of establishing an inclusive,

resilient, and sustainable New India is at the centre of these infrastructure projects. The Modi administration is accelerating socio-economic growth nationwide, empowering millions of people, and closing disparity amongst them by attending to the basic requirements of urban as well as rural residents. It has involved more than just constructing physical buildings; it has also involved changing people's lives and establishing possibilities for everyone. The government has laid the foundation for a more prosperous and sustainable future by committing to prioritise infrastructure development. India is making enormous progress towards reaching its full capabilities and becoming an international pioneer in the construction of resilient, dynamic, and inclusive infrastructure with every new project.

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