



INDIAN RAILWAYS

JUNE 2025 | PRICE ₹70

UNPRECEDENTED GROWTH

ANNUAL ISSUE

FY 2024-25



A CHAPTER OF GROWTH WHERE EVERY ACTION SPOKE LOUDER THAN PROMISE





Mumbai-Ahmedabad Bullet Train Project

Paving the Way for a 'Viksit Bharat' with Steady Progress and Key Achievements



I Vivek Kumar Gupta
Managing Director

modelled as 'Special Purpose Vehicle' in the joint sector with equity participation by Central Government through Ministry of Railways and two State Governments i.e. Government of Gujarat and Government of Maharashtra.

National High-Speed Rail Corporation Limited (NHSRCL) was incorporated on 12th February, 2016 under the Companies Act, 2013 with an object to finance, construct, maintain and manage the High Speed Rail Corridor in India. The Company has been

The High-Speed Rail (HSR) project apart from being a technological marvel, would bring many quantifiable benefits like saving in travel time, vehicle operation cost, reduction in pollution, job creation, reduction in accidents/ enhanced safety, imported fuel substitution and reduction in pollutants. The project would also boost the infrastructure and add to the growth of economy.

Mumbai-Ahmedabad High-Speed Rail (MAHSR) corridor marks an iconic milestone in India's journey towards becoming Viksit Bharat (Developed India). The country's first-ever Bullet Train project will not only redefine intercity travel but also catalyze economic growth and regional integration.

The project is now progressing at a fast pace, with notable advancements achieved during the FY



Under-construction Mumbai-Ahmedabad Bullet Train Viaduct

2024-25. Progress of infrastructure works in the FY 2024-25 has been definite towards realisation of India's dream of its first Bullet Train. The significant progress made has brought the vision of a world-class transportation system closer to becoming a reality.

The engineering achievements are a testament to the remarkable progress we have made. Approximately 130 km of viaduct and 100 km of pier work were completed during the year, bringing the total progress to 287 km of viaduct and 383 km of pier work to date. These critical milestones lay a strong foundation for the continued advancement of the project.

In Gujarat, we have made significant strides in construction by successfully completing bridges on seven rivers including the Dhadhar (Vadodara district), Kolak (Valsad district), Vatrak (Kheda district), Kaveri (Navsari district), Kharera (Navsari district), Meshwa (Kheda district) and Kim (Surat district) bringing the total number of completed bridges to 14 till date. Total 21 river bridges are planned for the project in Gujarat section.



Completion of Bridge on Kharera River, Navsari District, Gujarat

Additionally, four steel bridges and four prestressed concrete (PSC) bridges were also completed contributing to a total of seven steel and five PSC bridges. These structures are critical for the efficient and safe operation of the high-speed rail system and are a key part of the project's progress. Total 28 steel bridges; 17 in Gujarat and 11 in Maharashtra are being planned for the project.



100 m long 'Make in India' Steel Bridge launched over four Railway Tracks in Surat, Gujarat

Over 2 lakh noise barriers were installed along the 100 km stretch of viaduct in Gujarat, further reinforcing the project's commitment to sustainability and environmental protection. This brings the total to approximately 3 lakh noise barriers installed along the 150 km stretch. These noise barriers are designed to reduce the impact of sound on nearby areas generated by the interaction of train and civil structures during operations.

Along the steady progress of civil work in Gujarat, the track work has also gained significant



Installation of Noise Barriers in Gujarat

momentum in the FY 2024-25. Around 75 km of RC track bed was completed on the viaduct bringing the total to 130 km. Also, the welding of rails on the viaduct has commenced to form long panels of 200 m length.

To facilitate the track construction including handling of rails, track slabs, machineries and equipment on ground and at the viaduct, dedicated Track Construction Bases (TCBs) are constructed. At present, six (06) track construction bases, three in between Surat-Billimora-Vapi and three in between Vadodara-Anand-Ahmedabad are operational.

Mumbai Ahmedabad High-Speed Rail corridor will have J-slab track system of ballastless track based on Japanese Shinkansen track system. To produce these J-slabs, two state-of-the-art Track Slab Manufacturing Facilities (TSMF) have been set-up in Surat and Anand. These factories are designed to produce high grade concrete slabs with accurate dimensions to ensure a steady supply of this critical component used in the project.

In addition to the track work, the electrification work also commenced during the FY 2024-25. At present, about 2 km of steel masts have been installed on the viaduct in between Surat-Billimora Bullet Train stations. These masts will support the Overhead Equipment (OHE) system, including overhead wires, earthing systems, fittings and associated accessories as part of 2 x 25 kv overhead traction system for the MAHSR corridor suitable to run Bullet Trains.

The project has seen impressive and rapid construction across all 12 stations along the corridor. The structural work has been completed at six out of the eight stations of Gujarat. The stations on NHSRCL corridor are strategically located and are designed to serve not only as transport hubs but also as cultural landmarks. For a seamless travel experience, the stations on the alignment will be developed as a transport hub through integration with other modes such as rail, metro, buses, taxis and autos for better, faster and hassle-free connectivity to and from the station. Such interface will reduce travel time, enhance accessibility and promote the use of public transportation, thereby decreasing congestion and emissions in our cities.

In order to enhance accessibility and convenience of commuters, stakeholders and to promote economic activities around the stations, the surrounding areas of Bullet Train stations are planned to be developed in accordance with the policies of TOD (Transit Oriented Development). Four stations - Sabarmati and Surat in Gujarat and Virar and Thane in Maharashtra have been shortlisted by the city and state authorities under this initiative.

The construction pace in Maharashtra has also accelerated significantly during the year. The commencement of foundation work at the three elevated stations, signals the beginning of a major phase in the development of Bullet Train project. The casting of base slab for the Mumbai underground station was started and the excavation has commenced for the 21 km tunnel



Under-construction Anand Bullet Train Station in Gujarat



Under-construction Mumbai Bullet Train Station in Maharashtra

between Bandra-Kurla Complex and Shilphata. In Palghar district, the construction works of seven mountain tunnels have also commenced simultaneously.

One of the most extraordinary engineering feat of Bullet Train project is the construction of India's first undersea tunnel. With a total length of 21 km which includes 7 km beneath the Thane creek, this tunnel will leverage combination of New Austrian Tunnelling Method (NATM) and Tunnel Boring Machines (TBM). This pioneering achievement places India at the forefront of global infrastructure development.

While the infrastructural achievements are significant, we recognize that the backbone of any project is the people behind it. Our commitment extends beyond the physical construction to the well-being of the workforce and the communities around us. We are ensuring that the impact of this development is felt positively by everyone involved.



Safety Awareness Campaign 'Prayas' at Bullet Train Construction Sites

To promote safety of workers at the construction sites, an awareness campaign 'Prayas' featuring a series of Nukkad Nataks (street plays) were organised in the month of June and December 2024 across more than 100 construction sites covering casting yards, tunnel shafts, under-construction stations, depots, bridges and viaducts along the corridor. The campaign successfully reached and engaged over 13,000 workers, spreading the safety message and to protect their well-being.

In addition to our efforts within the workforce, we are also committed to the surrounding communities. Several initiatives that aim to uplift communities, improve health conditions and provide essential support to those in need, are a part of our ongoing commitment to Corporate Social Responsibility. The establishment of three Self Help Groups (SHGs) in Surat, Navsari and Bharuch for producing cost effective sanitary napkins for women in tribal areas and facilitation of around 1300 cataract surgeries for elderly patients in Maharashtra has already made a significant and lasting impact on the communities.

A project of this magnitude requires a highly skilled workforce and we are committed to ensuring that our engineers receive world-class training. Our 400 engineers (approx.) have completed certification courses with experts from Japan while 16 High-Speed Rail pilots and 14 Junior Managers have been given advanced training in Japan. We are also rolling out new initiatives aimed at strengthening our workforce's future-readiness which includes cybersecurity awareness, AI training and initiatives to promote work-life balance through sports activities—ensuring that our team remains strong, healthy and ready for the challenges ahead.

As the Mumbai-Ahmedabad Bullet Train Project moves forward, it serves as a powerful symbol of dedication to upgrading its infrastructure and adopting cutting-edge technology. The project will transform the entire transportation ecosystem, stimulate economic growth and improve regional connectivity. With its unmatched connectivity, passenger comfort and significant long term benefits, the NHRCL project is a giant leap toward fulfilling the vision of 'Viksit Bharat.' It will undoubtedly shape the future of mobility and development in India for the generations to come.■