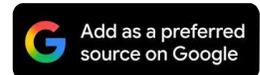


Thane–Borivali Twin Tunnel Project: TBM ‘Nayak’ Likely To Begin Excavation In September, Major Milestone Ahead

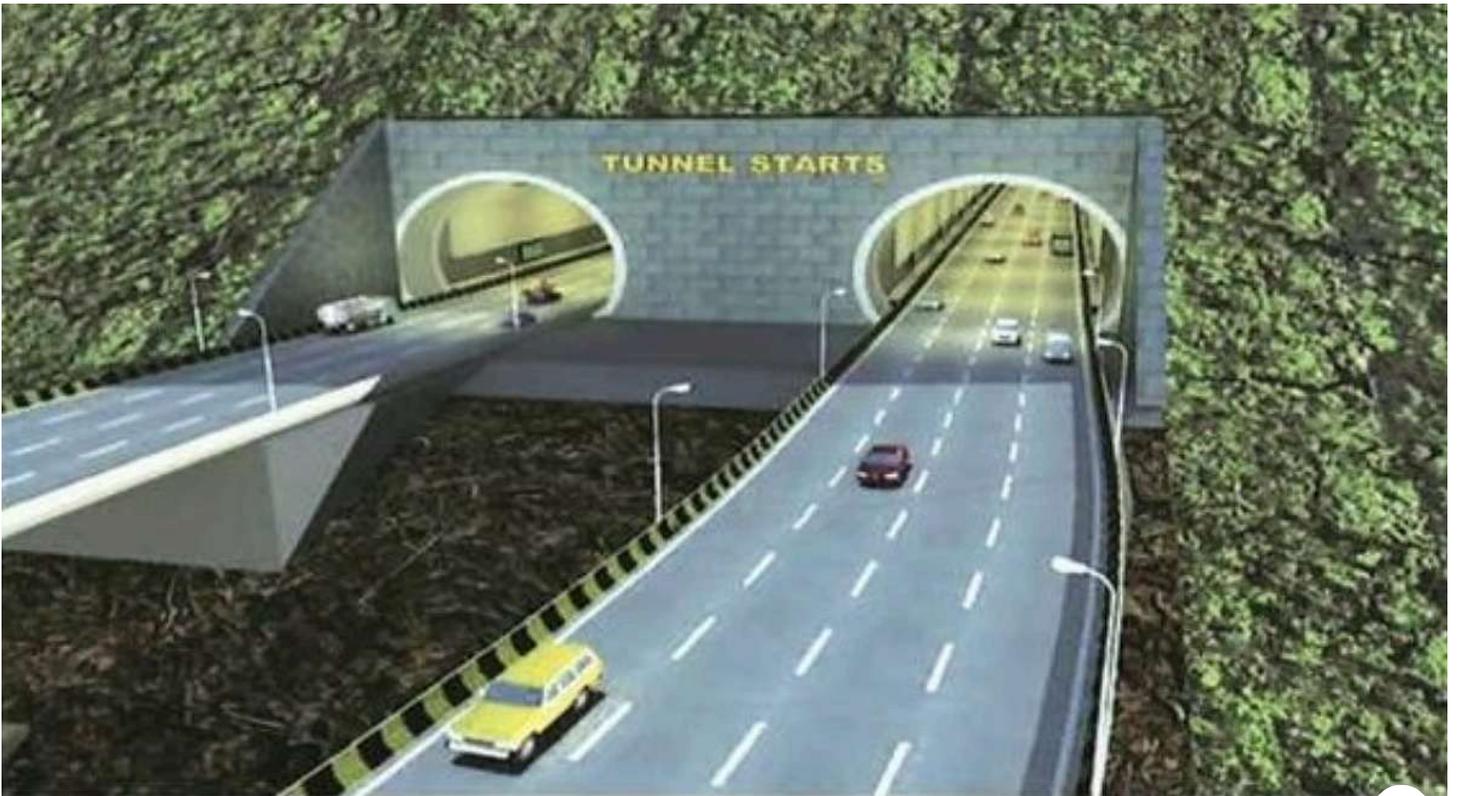
The Thane–Borivali twin tunnel project will reach a major milestone as TBM ‘Nayak’ is expected to begin excavation in September. The 23-km tunnel under Sanjay Gandhi National Park will reduce travel time between the two cities to 15 minutes.

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Sweety Bhagwat | **Updated:** Saturday, February 28, 2026, 05:47 AM IST





Massive tunnel boring machine 'Nayak' being assembled for the Thane–Borivali twin tunnel project aimed at cutting travel time to 15 minutes | Representational Image

Mumbai, Feb 27: The Thane-Borivali twin tunnel project is set to achieve a major milestone, with the first tunnel boring machine (TBM), named 'Nayak', likely to begin excavation from September, sources associated with the project said.

Assembly of massive machine underway

The assembly of the massive TBM is currently underway. With a diameter of 13.34 metres, the single-shield machine is among the largest deployed for an urban tunnelling project in the country, prompting engineers to adopt extensive safety and precision measures. The TBM comprises more than 1,000 components, of which over 800 parts have already been assembled.

German manufacturer supplies TBM

The machine has been supplied by Herrenknecht AG, the German tunnelling equipment major, through its Indian manufacturing facility in Chennai. Core components are sourced from its primary production base in Germany.



Agencies involved in execution

The Mumbai Metropolitan Region Development Authority (MMRDA) is the implementing authority for the project and has appointed Megha Engineering and Infrastructure Ltd as the contractor. A joint venture of Hill International and Tata Consulting Engineers has been engaged as project consultants.

Special precautions under Sanjay Gandhi National Park

According to sources, special precautions are being taken as the TBM will pass beneath the ecologically sensitive Sanjay Gandhi National Park. Given the forest terrain and the possibility of

concealed water bodies, measures to address potential water seepage are being incorporated. A source said safety protocols similar to those adopted in the Singapore Metro, which runs beneath river systems, will be followed.

After the assembling work of the TBM is completed, the trial and tests will take another 15 to 20 days; therefore, the TBM excavation is likely to commence from September.

Advanced safety and monitoring systems

The TBM is equipped with automated debris removal systems, emergency response modules, advanced worker-safety mechanisms aimed at reducing manual intervention and enhancing operational safety, and real-time navigation and monitoring systems designed to maintain high excavation precision.

Travel time to reduce drastically

At present, the 23 km commute between Thane and Borivali takes between one and one-and-a-half hours by road. The twin tunnel is expected to cut travel time to around 15 minutes. Each tunnel will accommodate two traffic lanes and one emergency lane, with cross-passages planned at intervals of 300 metres for safety.

Second TBM to follow

Meanwhile, the second TBM for the project is still in transit. Sources said that once Nayak is lowered into the shaft and excavation begins, assembly of the second machine will commence. The heavy machinery required for assembly cannot be deployed simultaneously due to space and cost constraints.