

Rishikesh-Karnaprayag Tunnel T-8

May 2, 2025 • vajiramandravi.com



Rishikesh-Karnaprayag Tunnel T-8 Latest News

Tunnel No. 8 (T-8) is set to become India's longest rail transportation tunnel at 14.57 km, surpassing the current longest T-50 (12.77 km) on the Udhampur-Srinagar-Baramulla Railway Link.

About Rishikesh-Karnaprayag Tunnel T-8

- **T-8** is a **twin tunnel** situated on the **Devprayag-Janasu stretch** of the **125-km Rishikesh-Karnaprayag Broad Gauge Rail Link Project**, in the **state of Uttarakhand**.
- The project is being implemented by **Rail Vikas Nigam Limited (RVNL)**, a **Navratna PSU** under the **Ministry of Railways**, and **executed by Larsen & Toubro (L&T)**.
- **Over 83% of the 125-km alignment**—about **104 km**—comprises tunnels, making it one of the most **underground-intensive rail projects in India**.
- The rail line will connect **Rishikesh to Karnaprayag**, cutting travel time from **7 hours to just 2 hours**, enhancing connectivity across **five districts: Dehradun, Tehri Garhwal, Pauri Garhwal, Rudraprayag, and Chamoli**.

Engineering and Technological Highlights

- **Tunnel Boring Machines (TBMs)** were used for the **first time in Himalayan rail projects** to excavate **10.4 km of T-8**. These **2200-tonne machines** were imported from **Germany**, transported via **17 shipments** and assembled on site.
- The **diameter of the TBM used** for T-8 was **9.1 metres**, larger than the **6-metre TBMs** used in the **Delhi Metro**.
- **The New Austrian Tunnelling Method (NATM)** was used to excavate the **remaining 4.11 km** of the tunnel, especially in non-uniform geological zones.
- **Three advanced technologies** were deployed for safety and precision:
 - **Tunnel Seismic Prediction (TSP)** to detect geological faults.
 - **Torque Box** for multidirectional boring capability.
 - **Void Measurement** to detect and fill gaps behind tunnel linings.

Source: **IE**

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