

Chenab Railway Bridge

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Chenab Railway Bridge: World's Tallest Railway Bridge Boosting Kashmir Connectivity

Context:

The **Prime Minister of India** is set to inaugurate the **Chenab Railway Bridge**, marking the completion of the **Udhampur-Srinagar-Baramulla Rail Link (USBRL) Project**. With this, India officially becomes home to the **world's tallest railway bridge**, a symbol of both **engineering brilliance** and **strategic national connectivity**.

About Chenab Railway Bridge

What is it?

- A **steel-arch railway bridge** constructed over the **Chenab River** in **Jammu & Kashmir**.
 - Officially the **tallest railway bridge in the world** with a height of **359 metres**, which is **35 metres taller than the Eiffel Tower**.
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Location:

- Lies between **Bakkal and Kauri villages** in the **Reasi district** of **Jammu & Kashmir**.
 - Part of the **Udhampur-Srinagar-Baramulla Rail Link (USBRL)**.
 - Connects **Katra to Sangaldan**, eventually linking to **Srinagar by rail**.
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Construction & Execution:

- Executed by **Konkan Railway Corporation**.
 - Built by a joint venture comprising:
 - **Afcons Infrastructure**
 - **Ultra Construction** (South Korea)
 - **VSL India**
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Key Features:

- **Total Length:** 1,315 metres (530 m approach + 785 m main arch)
 - **Height:** 359 metres
 - **Wind Resistance:** Up to **266 km/h**
 - **Earthquake Resilience:** Can withstand up to **magnitude 8** earthquakes (Zone V seismic zone)
 - **Temperature Tolerance:** Down to **-20°C**
 - **Blast-Proof:** Can withstand blasts equivalent to **40 tonnes of TNT**
 - **Lifespan:** 120 years
 - **Train Speed:** Supports trains up to **100 km/h**
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Significance of the Project

Strategic Importance:

- Enhances **connectivity to the Kashmir Valley**, which is a **border-sensitive region**.

- Crucial for **national security and rapid troop movement** if required.

Engineering Achievement:

- Built in a **complex Himalayan terrain** with fractured geology.
- Lies in the **high-risk seismic Zone V**.

National Integration:

- Facilitates **uninterrupted rail access** to Jammu & Kashmir, promoting unity and inclusiveness.

Civil Engineering Marvel:

- Represents India's **technological capability** in infrastructure and resilience.

Tourism and Economic Impact:

- Expected to **boost tourism** and **generate employment** in the region.
- Acts as a catalyst for **regional development**.

