

Chenab bridge: How project team navigated through steep slopes on horses, mules



To realise the vision of travelling from "Kashmir to Kanyakumari" by rail, the project team behind the construction of [Chenab bridge](#) faced several challenges. Among them was how to reach the location surrounded by the steep slopes of the Himalayas.

The team had only one option -- horses and mules.

According to [Afcons Infrastructure Limited](#), the top infrastructure company that constructed the bridge, one of the main and earliest challenges was access to the bridge location, to transport equipment and construction materials.

"Initially, mules and horses were used by the project team to reach the location. Slowly over a period, temporary roads were created and access was made available to the site," a spokesperson from the company said.

Prime Minister Narendra Modi on Friday inaugurated the iconic Chenab Bridge, Anji Rail Bridge and Udhampur-Srinagar-Baramulla Rail Link (USBRL) project and flagged off Vande Bharat trains, connecting Kashmir to Kanyakumari.

The spokesperson added that eventually on the North side of the river bank, an 11-km road was constructed and a 12-km long road on the South side.

Krishnamurthy Subramanian, Executive Vice Chairman, Afcons, said the Chenab Railway Bridge is more than just a marvel of engineering.

"It is a symbol of India's resolve to conquer the most formidable challenges with ingenuity and courage," Subramanian told PTI.

The company used the world's tallest crossbar cable cranes and specialised heavy machinery as tools for this ambitious project.

"The ancient and steep slopes of the Himalayas were tamed using massive consolidation grouting, making them sturdy for the colossal arch foundations," the company said, highlighting challenges it faced.

"With the foundations set, the erection of the arch from both sides was planned by cantilever construction technique. The first big moment of triumph came on April 5, 2021, when a single majestic arch approaching steadily from both banks met at the crown," it added.

"The viaduct construction was another unique challenge. There were multiple transition areas. Keeping this in mind, the launching sequence was meticulously planned in four sections," the spokesperson.

Giridhar Rajagopalan, Deputy Managing Director, Afcons told PTI that for the first time in [Indian Railways](#), incremental launching was done on transition curve and a longitudinal gradient, both occurring at same location, for the deck launching of the viaduct portion of the Chenab Bridge.

S Paramasivan, Managing Director, Afcons, "For Afcons, it represents our unwavering commitment to nation-building and our ability to reimagine infrastructure in the toughest terrains. This bridge will inspire generations of engineers and stands as a tribute to the power of Indian engineering and teamwork."

For the first time in the Indian Railways' history, a laboratory accredited by the National Accreditation Board for Testing and Calibration (NABL) was set up to ensure that quality was being monitored at every stage of the project.

Situated at a height of 359 metres above the river, the Chenab bridge is 35 metres higher than the iconic Eiffel Tower in Paris and the [world's highest railway bridge](#) over the Chenab river.

After inaugurating the Chenab bridge, the prime minister walked on it holding the Tricolour high. He travelled in a rail engine coach to reach the spot.