Chenani Nashri tunnel

Why in news?

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Chenani Nashri tunnel is recently opened and it provides a safer, shorter route to the valley crossing through the heart of Himalayas.

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What is about the tunnel?

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- The 9.2 km tunnel, which will bypass snow and landslide-prone Kud, Patnitop and Batote on National Highway 44.
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- This marks significant road building in India, including an unprecedented stress on user safety.
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- The 9.2 km-long road tunnel that bores through the belly of the lower Himalayas between Chenani in Udhampur district and Nashri in Ramban district is an achievement of engineering.
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- The tunnel incorporates India’s first fully integrated mechanism to externally control everything from the movement of vehicles to the inflow and outflow of air, and even the evacuation of passengers or vehicles in distress.
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- It is located at an altitude of 1,200 metres (nearly 4,000 feet) in difficult Himalayan terrain.
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- It will reduce the travel time on National Highway 44 between Jammu and Srinagar by about 2 hours by shortening the distance between the cities by 30 km.
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- And will altogether bypass Kud, Patnitop and Batote, locations where the highway is prone to being blocked by snow and landslides.
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- It will help save 27 lakhs worth of fuel between the two areas.
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- It provided better connectivity to Doda, Bhaderwah, Kisthwar.
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- It preserves ecologically sensitive forests in Patnitop area.
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- It incorporated new Austrian Tunnelling method also called Sequential Excavation Method.
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- There exists two tubes, one is for main traffic tunnel, and a separate safety or escape alongside.
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- The tunnel provides inlets every 8 m bringing fresh air into the main tube, and exhaust outlets every 100 m opening into the escape tube.
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- This makes the Chenani-Nashri tunnel as the country’s first and the world’s sixth road tunnel with a transverse ventilation system.
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- Transverse ventilation will keep tailpipe smoke inside the tunnel at a minimum level to prevent suffocation and keep visibility at acceptable levels, especially since the tunnel is so long.
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- SOS boxes installed every 150 m will act as emergency hotlines for commuters in distress.
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- The SOS boxes are also equipped with first-aid facility and some essential medicines.
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- In case of breathlessness, claustrophobia or other discomfort, or in case of breakdown of a vehicle, the commuter will be expected to inform the ITCR the number of the nearest crossway, and an ambulance or crane will be rushed through the parallel escape tunnel.
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- Commuters will also be able to use their mobile phones inside the tunnel.
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- To prevent diminution of vision as a result of change in the light while going in or coming out of the tunnel, the lighting inside has been adjusted at a gradient of luminous strength.
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- Despite having been excavated in a difficult Himalayan region, both tubes are 100% waterproof.
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- There will be no seepage of water from the ceilings or any of the walls of

the tunnels.
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What are the key tunnels in Jammu and Kashmir?

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- JAWAHAR TUNNEL, named after India’s Pandit Jawaharlal Nehru, the 2.85 km long tunnel connecting Banihal in Jammu with Qazigund in the Valley was built at an elevation of 2,194 m.
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- The Border Roads Organisation renovated it in 1960, giving it a 2-way ventilation system, pollution and temperature sensors, lighting system and emergency phones.
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- NANDNI TUNNELS, beneath the Nandni wildlife sanctuary, of lengths between 210 m and 540 m, adding up to a combined length of 1.4 km.
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- They bypass several kilometres of twisty roads; reduce Jammu-Udhampur travel time by more than 30 minutes.
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What are the other important rail links?

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- BANIHAL-QAZIGUND is a 11.215 km tunnel is India’s longest and Asia’s 4th longest railway tunnel.
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- At an elevation of 1,760 m, the tunnel passes under the Jawahar tunnel.
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- The tunnel brings Qazigund and Banihal closer by 17 km.
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- Uhampur and Katra along with Jammu and Udhampur are the important rail links in the state.
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Source: Indian Express

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