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### **News & Views**

# Government proposes 15.6km twin road tunnel of strategic importance under Brahmaputra

In what could prove to be an engineering marvel, the Narendra Modi government has proposed a 15.6 km twin-tunnel under the mighty Brahmaputra river, which will not only protect the Kaziranga National Park by bypassing it but also benefit India strategically by cutting travel time between Assam and Arunachal Pradesh.

Each of the two tunnels will have two lanes for smooth flow of traffic and will be built 22 metres below the river bed. The total length of the project will be approximately 33 km, including the 15.6 km tunnel and 18-km approach roads to connect to the highway.

Owing to its strategic importance, the project has already been endorsed by the Directorate of Military Operations. India has been beefing up its road infrastructure along the borders, including in the Northeast to counter any challenge from neighbouring countries like China.

The proposed project will cost Rs 12,807 crore and is a greenfield alignment to provide a direct link between Gohpur on NH-52 and Numaligarh on NH-37 in Assam.

The link, which is part of the 315 km long NH-37 that connects Nagaon to Dibrugarh, will help bypass the Kaziranga belt that falls on this highway stretch.

The project will be funded entirely by the Ministry of Road Transport and Highways.

Way back in 2008, when the Cabinet Committee on Economic Affairs approved the four-laning of NH-37, a decision was taken to have an alternate alignment to bypass Kaziranga National Park. The ministry took time to come up with a new alignment that didn't fall on the way of the park.

Senior officials in the road ministry told ThePrint that the National Highways and Infrastructure Development Corp. Ltd (NHIDCL), a fully owned company under the ministry, is preparing the Detailed Project Report (DPR) of the twin-tunnel.

"NHIDCL has submitted the draft geophysical study to the road ministry and the DPR is in advanced stage of preparation," said a senior ministry official, who didn't want to be named.

At a meeting chaired by Road Secretary Giridhar Armane on 1 September, NHIDCL was directed to prepare a draft note for the Cabinet Committee on Security after getting the project endorsed by the Ministry of Defence.

Senior road ministry officials told ThePrint that earlier, the Border Roads Organisation had planned another tunnel under the Brahmaputra but since the agency was yet to prepare the DPR, it was decided that NHIDCL should go ahead with its proposed project as its DPR was in advanced stage of preparation.

If the project gets cleared, it will be the second twin-tunnel that will be constructed under a river in India. Another twin-tunnel project, though not a road tunnel, is currently underway in Kolkata - a 10.8-km stretch of the East-West metro corridor under the Howrah.

### An engineering marvel

The proposed four-lane tunnel under the Brahmaputra river will be constructed using tunnel boring machines. It is expected to be completed in two years after work starts.

The tunnels will have an electrical substation, sensors and CCTVs to monitor vehicular movement. "Both the tunnels will be inter-connected to help in evacuation in case of an accident or any other emergency," an NHIDCL official said on condition of anonymity.

Originally, NHIDCL had proposed to build a four-lane bridge across the Brahmaputra to link Gohpur and Numaligarh. "But in 2019, it was decided to construct a twin tube tunnel because it was considered to be strategically more useful in case of war or any other external exigencies," said a second road ministry official who didn't wish to be named.

Currently, there are five bridges across the Brahmaputra while one more is under construction and another is being planned.

### How will it help?

As of now, it takes approximately six hours to cover the nearly 223 km distance from Numaligarh to Gohpur. There is a two-lane road adjacent to the Kaziranga wildlife sanctuary, which is prone to massive traffic congestion. It is also a circuitous route leading to longer travel time.

However, NHIDCL officials said that once the greenfield alignment under the river is completed, the distance between Numaligarh and Gohpur will reduce to 35 km and it will take under an hour to cover the stretch.

"The road project will improve connectivity between the north and south side of Brahmaputra and will result in greater economic development in the region," added the NHIDCL official quoted above.

Source: htts://https:/theprint.in/india, 28.9.2021

# Kerala's first road tunnel opens on one side, to improve Tamil Nadu-Karnataka connectivity

The Kuthiran Tunnel is the first road tunnel in Kerala. It is a twin-tube tunnel, with three lanes in each tube, located at Kuthiran in Thrissur district of Kerala

On instruction from Union Highways Minister Nitin Gadkari, one side of Kuthiran Tunnel in Kerala has been opened on one end. The move will help improve connectivity between Tamil Nadu and Karnataka, Ministry of Road Transport and Highways said in a statement on Sunday.

The Kuthiran Tunnel is the first road tunnel in Kerala. It is a twin-tube tunnel, with three lanes in each tube, located at Kuthiran in Thrissur district of Kerala. One of the two tubes has been opened today.

The tunnel is 1.6 km long and runs through the Peechi-Vazahani wildlife sanctuary. The objective of this road tunnel is to improve connectivity between important ports and towns while protecting wildlife.

Source: https://www.livemint.com/news/india, 1.8.2021

## Pragati Maidan tunnel road corridor may open by November, says PWD

The project was primarily designed to handle the projected growth in traffic after revamp of Pragati Maidan. The tunnel road, goes beneath Pragati Maidan, starting near National Sports Club of India (NSCI) on Purana Qila Road, and ends on Ring Road near the Pragati Power station. The 932-crore project will help reduce snarls by cutting east Delhi-bound traffic from south and Lutyens' Delhi through India Gate and ITO.

A 1.2-kilometre-long tunnel road corridor underneath Pragati Maidan, connecting Mathura Road, Ring Road and Bhairon Marg is likely to be opened by November, said senior officials of the Delhi government's Public Works Department -- the agency that is executing the work.

The underground road corridor will help decongest one of the most traffic-intensive areas in Delhi as well as roads that are marred perennially by traffic jams. Once the tunnel opens, along with six underpasses that are also part of the project to allow traffic move seamlessly enter and exit the underground road, a drive to the India Gate and parts of central Delhi from different corners of the city will become hassle free.

However, like the Ashram Chowk underpass, this project too has been running way behind schedule, and the PWD is not only yet to finish work on the tunnel, but also have to get necessary approvals to finish work on two of the six underpasses that are part of the project. This is besides the major road repair works that the agency will have to undertake on Mathura Road, Ring Road and Bhairon Marg, near project sites.

The tunnel and the six underground U-turns were to be finished by March 2019. The same year, PWD fixed two new deadlines -- first for May and then September. However, when it could not meet either of them, the department did not fix a new deadline.

Senior officials quoted above, however, expressed the confidence that the entire project will be opened in phases, after trials, adding that around 95% work on the tunnel has been done.

Of the six underpasses -- five are located on Mathura Road, and one on the Ring road. Two of the five underpasses on Mathura Road are near Sundar Nagar and three are between Pragati Maidan and Supreme Court. The underpass on the Ring Road connects it to Bhairon Marg.

Officials said though work on four underground U-turns is nearing completion, the other two are stuck.

"Work at two of the underpasses near Supreme Court and Matka Peer is stalled as we are yet to receive permissions from a few agencies. As soon as we get those, work will commence there as well and we will soon be able to open those stretches as well. We will also construct a service lane along Mathura road before we open the roads for trial. After getting a final nod from the traffic police, it will be thrown open for final operations by November," said an official.

In the first phase, the main tunnel will be thrown open to traffic by November along with three other underpasses at DPS Mathura road, Kaka Nagar and Bhairon Marg. Officials said that trials on this stretch will begin after the second week of October, but only a limited number of vehicles will be allowed.

Besides finishing work to be able to open the tunnel road by November, the PWD will have to undertake major road repairs on Mathura Road as well as Bhairon Marg. Stretches on both roads where work is going on, are in tatters.

The project was primarily designed to handle the projected growth in traffic after revamp of Pragati Maidan. The tunnel road, goes beneath Pragati Maidan, starting near National Sports Club of India (NSCI) on Purana Qila Road, and ends on Ring Road near the Pragati Power station.

The 932-crore project will help reduce snarls by cutting east Delhi-bound traffic from south and Lutyens' Delhi through India Gate and ITO. At least 90,000 commuters use the ITO intersection every day and at least 60,000 commuters use the Bhairon Marg intersection every day, according to PWD data.

A senior PWD official, who is associated with the project said the tunnel will also provide three entry/exit points to the underground parking coming up at Pragati Maidan.

Sewa Ram, professor, School of Planning and Architecture, said the tunnel will definitely help decongest ITO and provide easier ride to and from East Delhi to Central Delhi. "However, the full results of this project will only be seen once the PWD opens all six underpasses," he said.

Other experts said to completely decongest the entire Mathura Road, the PWD should also expedite work on the under-construction underpass at the Ashram Chowk. They said once the tunnel opens, and traffic flow becomes smoother from ITO, vehicles will still get stuck at the Ashram Chowk.

Source: www.hindustantimes.com, 20.9.2021

## First ever all-civilian space odyssey ends with a perfect splashdown

Four space tourists safely ended their trailblazing trip to orbit on Saturday with a splashdown in the Atlantic off the Florida coast.

Their Spacex capsule parachuted into the ocean just before sunset, not far from where their chartered flight began three days earlier. The amateur crew was the first to circle the world without a professional astronaut.

The billionaire who paid undisclosed millions for the trip and his three guests wanted to show that ordinary people could blast into orbit by themselves, and Spacex founder Elon Musk took them on as the company's first rocket-riding tourists. "Your mission has shown the world that space is for all of us," Spacex mission control radioed.

"It was a heck of a ride for us," replied trip sponsor Jared Isaacman.

Spacex's fully automated Dragon capsule reached an altitude of 585km after Wednesday night's lift-off. Surpassing the International Space Station by 160km, the passengers savoured views of Earth through a big bubble-shaped window on the top of the capsule.

The four streaked back through the atmosphere early on Saturday evening, the first space travellers to end their flight in the Atlantic since Apollo 9 in 1969. Spacex's two previous crew splashdowns - carrying astronauts for the Nasa - were in the Gulf of Mexico.

Within a few minutes, a pair of Spacex boats pulled up alongside the bobbing capsule. When the capsule's hatch was opened on the recovery ship, healthcare worker Hayley Arceneaux was the first one out, flashing a big smile and thumbs up.

Their families were waiting near the scene of Wednesday night's launch from Nasa's Kennedy Space Center. This time, the Nasa was little more than an encouraging bystander, its only link being the Kennedy launch pad once used for the Apollo moonshots and shuttle crews, but now leased by Spacex.

Source: Hindustan Times, 20.9.2021

## Women may lead BRO projects along border

The Border Roads Organisation (BRO) plans to create four women-led road construction companies (RCC) to handle projects in forward areas along the India-China border, officials familiar with the development said on Sunday. Two women-led RCCs each will come up in the western and the north-eastern sectors, the defence ministry said in a statement.

The announcement comes weeks after BRO appointed a woman officer, Major Aaina Rana, as the commanding officer of the 75 RCC at Pipalkoti in Uttarakhand's Chamoli. She will be responsible for providing forward connectivity along the India-China border. Rana's RCC is the BRO's first women-led RCC as all three platoon commanders under her are women engineers.

"As India celebrates 75 years of Azaadi Ka Amrit Mahotsav, it also celebrates the ongoing efforts of our nation towards women empowerment...By empowering them with the tools of authority, responsibility and respect, BRO firmly believes that women will always be active participants in the endeavour of nation building," the statement said.

In April, BRO's Vaishali S Hiwase took over as the first woman commanding officer of an RCC responsible for providing forward connectivity along the India-China border in the northern sector.

BRO is building strategic roads in Ladakh, Jammu and Kashmir, Uttarakhand, Himachal Pradesh, Arunachal Pradesh and Sikkim and plans to complete all 61 strategic roads along the China border by December 2022 to allow swifter mobilisation of troops and stores to forward areas.

The move to create women-led RCCs comes at a time when new avenues are being opened for women in the armed forces and those wanting to join the armed forces.

Last month, the Indian Army promoted five women officers to the time-scale rank of colonel after the completion of the mandatory 26 years of service. That was the first time that women officers were promoted to the rank outside the medical, legal and education wings of the army.

The development came 18 months after the Supreme Court ruled that women officers, who joined the Indian Army through short service commission (SSC), were entitled to permanent commission and command roles.

The doors of the National Defence Academy (NDA), thus far a male preserve, are also being opened to women. Women were allowed to serve in select branches of the three services as SSC officers almost three decades ago. The headcount of women in the military has increased almost three-fold over the last six years, with more avenues being opened to them at a steady pace. As of February 2021, there were 9,118 women serving in the army, navy and air force.

One of the turning points for women in the military came in 2015 when the Indian Air Force decided to induct them into the fighter stream. Women are now being assigned to warships too, but tanks and combat positions in infantry are still no-go zones for them.

Source: Hindustan Times, 20.9.2021

### Tunnel to Red Fort found, used by British to move freedom fighters

A tunnel-like structure was discovered at the Delhi Legislative Assembly on Thursday.

Speaking to ANI, Delhi Legislative Assembly Speaker Ram Niwas Goel said that the tunnel connects the legislative assembly to Red Fort and was used by the Britishers to avoid reprisal while moving freedom fighters.

"When I became an MLA in 1993, there was hearsay about a tunnel present here that goes till Red Fort and I tried to search for its history. But there was no clarity over it," he stated.

"Now we have got the mouth of the tunnel but we are not digging it further as all the paths of the tunnel have been destroyed due to metro projects and sewer installations," he added.

Mr Goel further informed that the Delhi Legislative Assembly, which was used as Central Legislative Assembly after shifting of capital from Kolkata to Delhi in 1912, was turned into a court in 1926 and Britishers used this tunnel to bring freedom fighters to the court.

"We all knew about the presence of a gallows room here but never opened it. Now it was the 75<sup>th</sup> year of independence and I decided to inspect that room. We intend to change that room into a shrine of freedom fighters as a tribute to them," he said.

The assembly speaker added that in view of the history of the Delhi Legislative Assembly associated with the independence of the country, he intends to open the gallows room for the tourists by the next Independence Day and the work for the same has already started.

"This place has a very rich history in the context of the freedom struggle. We intend to renovate it in a way that tourists and visitors can get a reflection of our history," he said.

Source: www.ndtv.com, 3.9.2021