

# **NEW/SLETTER**

# CONSTRUCTION INFRASTRUCTURE UPDATES

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## Bids for mega Vadhavan port project likely by September Swarajya, January 23, 2025

#### PPP mode for investments in core infrastructure

Port capacity as well as traffic handled in major and non-major ports doubled, largely with private investment.

Bids for the development of core infrastructure like offshore land reclamation under publicprivate partnership (PPP) are likely to be called before September for the all-weather greenfield deep major port at Maharashtra's Vadhavan, a key piece of the India Middle East Europe Economic Corridor (IMEEC), sources said.

The total project cost, including the land acquisition component, is Rs 76,220 crore.

The port will comprise nine container terminals, each 1000 meters long, four multipurpose berths, including the coastal berth, four liquid cargo berths, a Ro-Ro berth, and a Coast Guard berth. The project involves the reclamation of 1,448 hectares of area in the sea and the construction of 10.14 km of offshore breakwater and container/cargo storage areas. When completed by 2034, the project will create a cumulative capacity of 298 million metric tons (MMT) per annum, including around 23.2 million TEUs (Twenty-foot equivalents) of container handling capacity. The port alone would have more than the current container handling capacity in the country and would rank among the world's top 10 largest ports.

"The bidding for core infrastructure including offshore land reclamation should go in less than six months," an official said.

The capacities created will aid trade flow through IMEEC and INSTC (International North South Transportation Corridor). IMEEC will connect Indian ports such as the Jawaharlal Nehru Port Authority, Mundra (Gujarat), and Kandla (Gujarat), with West Asian ones such as Fujairah, Jebel Ali, and Abu Dhabi in the UAE, and Saudi Arabian ports of Dammam, Ras Al Khair, and Ghuwaifat.

This will include the development of core infrastructure, terminals and other commercial infrastructure in PPP mode. Vadhavan Port Project Limited (VPPL), an SPV formed by Jawaharlal Nehru Port Authority (JNPA) and Maharashtra Maritime Board (MMB) with a shareholding of 74% and 26%, respectively. It got the Cabinet nod in June 2024.

The project, aligned with the objectives of PM Gati Shakti program, will add to further economic activity and also have the potential for direct and indirect employment opportunities for around 1.2 million individuals, thereby contributing to the local economy.

Port capacity as well as traffic handled in major and non-major ports doubled, largely with private investment. This has also reduced logistical costs due to a sharp fall in waiting time at ports. Cargo handling capacity at major ports doubled over the past decade reaching 1,630 MTPA by March 2024, as compared to 800.5 MTPA in 2014.

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Rishikesh-Karnaprayag Rail Line Project Progresses With Final Breakthrough Of Shrinagar-Dungripanth Main Tunnel <sup>Swarajya,</sup> January 22, 2025

In a major milestone, the final breakthrough of the main tunnel connecting Shrinagar and Dungripanth on the Rishikesh-Karnaprayag rail line was achieved on Tuesday (21 January).

This tunnel, known as Tunnel Number 11, spans from GITI Maidan in Srinagar to Dungaripanth and measures a total length of 9.05 km.

On Tuesday, a breakthrough was achieved at the 3.3-km mark, successfully connecting both ends.

The Rishikesh-Karnaprayag Rail Line Project is a 125-kilometer new broad-gauge railway being constructed by Rail Vikas Nigam Limited (RVNL).

This milestone brings the ambitious Rishikesh-Karnaprayag Rail Line Project closer to its goal of enhancing connectivity in the hilly terrain of Uttarakhand.

Tunnel construction on the project has been divided into 10 distinct packages, each being executed by separate agencies.

Package-6, under which Tunnel Number 11 falls, is located between Government ITI ground in Srinagar and Dungaripanth (Dhari Devi Station Yard).

This 9.05-km-long tunnel will connect Srinagar and Dungaripanth, forming a critical part of the project.

#### **Twin Tunnels for Safety and Efficiency**

Tunnel number 11 comprises two parallel tunnels: the main tunnel for train operations and an escape tunnel for emergencies.

To expedite construction, two additional access tunnels, Edit-5 near Shrikot Ganga Nali Gas Godown and Edit-6 in Sweet village, were built.

Portal-1 of the main tunnel is located at G ITI ground, while Portal-2 is at Dungripanth/Dhaari Devi Station Yard.

At 3 pm on Tuesday, the final breakthrough between Portal-1 and Edit-5 was successfully achieved, marking a significant milestone.

With this, the entire 9.05 kilometers of the main tunnel excavation is now complete.

#### **Progress on Final Lining and Supervision**

The final concrete lining has already commenced, with 5.29 km of work completed in the main tunnel and 3.6 km in the escape tunnel.



The construction under Package-6 is being executed by Song Da-Ritwik JV, supervised by project management consultant AECOM.

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Maharashtra Secures MoUs Worth Around Rs 16 Lakh Crore At WEF Davos, Aims For \$1 Trillion Economy By 2030 Swarajya, January 23, 2025

Maharashtra Chief Minister Devendra Fadnavis announced on Wednesday (22 January) that the state has signed Memorandums of Understanding (MoUs) worth nearly Rs 16 lakh crore during the World Economic Forum (WEF) Annual Meeting in Davos.

These agreements span multiple sectors and are pivotal to Maharashtra's ambition of achieving a \$1 trillion GDP by 2030.

Fadnavis stated in an interview with PTI that for India to become a \$5 trillion economy, Maharashtra's economy must reach \$1 trillion, a target that will be achieved by 2030.

The Chief Minister attributed the record-breaking investment commitments to the confidence of investors in the policy continuity at both the Centre and state levels, as well as their trust in Prime Minister Narendra Modi's leadership.

He assured that the state government would diligently track the MoUs to ensure their realisation into actual investments.

During a press conference with other Indian leaders, Fadnavis highlighted the importance of collective growth among states for the country's progress.

Telangana minister D Sridhar Babu expressed optimism about his state also reaching the \$1 trillion milestone. Kerala minister P Rajeev, attending Davos for the first time, extended invitations to the upcoming Invest Kerala summit.

Tamil Nadu minister T R B Rajaa emphasised India's global leadership as a knowledge powerhouse, suggesting that events like WEF could be hosted in Indian cities.

For the first time, all Indian leaders, including those from the Centre and various states, shared a unified presence at Davos. Rajaa suggested that the next time, it should be just one pavilion for everyone from the country.

Civil Aviation Minister K Ram Mohan Naidu praised the delegation, describing it as a "deadly mix of experience and youth," crediting Prime Minister Modi for this cohesive representation.

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India And Japan To Launch Latest Shinkansen E10 Bullet Train Simultaneously By 2029-30 Swarajya,

"Joining the Hands that Believe in Building Sustainably # Platform for Sustainable Infra"



January 23, 2025

India and Japan are set to introduce the latest iteration of the Shinkansen, the Alfa-X, also known as the E10, simultaneously in 2029-30.

Initially, indigenously developed high-speed trains will operated on the Ahmedabad-Mumbai corridor after the project's completion next year.

According to recent reports, Tokyo has agreed to India running its own high-speed prototypes on the same infrastructure, set to be ready by 2026-27.

Previously slated to receive the Shinkansen E5, India now looks forward to the E10, capable of reaching speeds up to 400 kmph—an upgrade from the E5's 320 kmph limit.

This development was attributed to Prime Minister Narendra Modi's strong push for the project and his excellent relationship with Japanese leadership, following high-level visits to Japan by Railway Minister Ashwini Vaishnaw in 2024.

To avoid keeping the bullet train infrastructure idle post-completion in 2026-27, India and Japan have agreed to test and launch two indigenously manufactured semi-high-speed bullet trains on the Ahmedabad-Mumbai corridor by 2027.

Indian Railways' Integral Coach Factory (ICF) awarded an Rs 867 crore contract to BEML Ltd in October 2024 for the production and commissioning of these trains.

Expected to be delivered by the end of 2026, the trains are designed for a top speed of 280 kmph, though they may operate at around 249 kmph.

The Shinkansen Alfa-X (E10), which is still undergoing trials in Japan, represents the future of high-speed rail with its groundbreaking speed and technology.

The \$17 billion Mumbai-Ahmedabad High-Speed Rail (MAHSR) project is a joint initiative by the Indian government, Gujarat, and Maharashtra, executed by the National High-Speed Rail Corporation Limited (NHSRCL).

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Mumbai-Ahmedabad Bullet Train Project Achieves New Milestone With Casting Of First 40 Metre Full Span PSC Box Girder For Maharashtra Section PTI, January 22, 2025

The National High-Speed Rail Corporation Limited (NHSRCL) has successfully cast the first Full Span Pre-Stressed Concrete (PSC) Box Girder of 40 meters span for the Maharashtra section of Mumbai-Ahmedabad Bullet Train project.

This significant achievement marks a step forward in the construction of the high-speed rail corridor.



The 40-meter-long PSC Box Girder, weighing approximately 970 metric tonnes, is the heaviest of its kind in India's construction industry.

It has been cast as a single piece, without construction joints, using 390 cubic meters of concrete and 42 metric tonnes of steel.

## **Parallel Construction Approach**

To expedite the construction of viaducts, NHSRCL has adopted a parallel construction strategy.

While the substructure work—comprising piles, pile caps, piers, and pier caps—progresses, the superstructure is being developed in casting yards established along the alignment.

These yards facilitate the casting of Full Span Girders and Segmental Girders, which are launched using heavy machinery over pre-constructed pier caps.

#### **Preference for Full Span Girders**

Full Span Girders, which are up to ten times faster to launch compared to Segmental Girders, are being prioritised for most of the superstructure.

However, for areas with site constraints, segmental girder launching will be used.

Thirteen casting yards are being developed between Shilphata and the Gujarat-Maharashtra border.

Currently, three yards-two for segment casting and one for full-span box girders-are operational.

These yards are equipped with advanced facilities, including jigs for rebar cage assembly, hydraulically operated prefabricated moulds, batching plants, aggregate storage, cement silos, quality control laboratories, and workmen accommodations.

#### **Advanced Launching Machinery**

The PSC Box Girders will be launched using state-of-the-art heavy machinery, including Straddle Carriers, Bridge Launching Gantries, Girder Transporters, and Launching Gantries.

To ensure a steady supply, girders are being pre-cast and systematically stored at the casting yards.

#### Drawing from Gujarat's Success

This technology has already proven successful in the Gujarat section of the corridor, where 255 km of viaduct construction have been completed since April 2021.

The Maharashtra section of the alignment spans 135 km of elevated section, including major infrastructure elements such as four river bridges, 11 special crossings over highways and railway lines, three bullet train stations (Thane, Virar, Boisar), and seven mountain tunnels.

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India's Longest Ropeway In Himachal: A 40 Km Ride Between Parwanoo And Shimla To Cut Travel Time To Two Hours By 2030 The Hindu Business Line, January 23, 2025

The ropeway projects in India have been envisioned to potentially link several pilgrimage sites and also cover congested urban areas.

To ease traffic congestion and significantly reduce travel time to Shimla, the Himachal Pradesh government is set to launch the country's longest ropeway project.

This ambitious venture, which spans a 40 km stretch between Parwanoo and Shimla, aims to cut travel time down to just two hours.

The state government plans to issue a global tender for the project by the end of this month or early next month, with construction expected to commence soon after the tendering process is completed.

The ropeway will feature 11 stations along its route, including Tara Devi (Goyal Motors), Tara Devi Temple, Shoghi, Waknaghat, Waknaghat IT City, Karol Ka Tibba, Solan, Barog, Dagshai Cantonment, Jabali, and Parwanoo.

Passengers will have the flexibility to travel the entire length or disembark at any of the stations, based on their preferences. Ticket counters will be installed at all stations, and the pricing structure will be finalised once the project is completed, which is anticipated by 2030.

The cable system will either use a mono-cable detachable gondola (MDG) system, capable of carrying 8 to 10 passengers, or the tri-cable 3S technology, with a higher capacity of up to 25 passengers per cable car.

The project is expected to relieve the significant traffic burden on the 90 km stretch between Shimla and Parwanoo, where 20,000 to 22,000 vehicles travel daily, and up to 45,000 during peak seasons.

Currently, heavy apple-laden trucks often cause long delays, with travel times extending up to five hours. With the completion of the four-lane highway, however, travel time is expected to be reduced.

Ajay Sharma, Director of Ropeways Transport Development Corporation (RTDC), revealed that the estimated cost of the ropeway project is Rs 5,571 crore, and it will be completed under a public-private partnership (PPP) model.

The project is set to carry about 904 passengers per hour in each direction, with an estimated 25 lakh passengers annually. By 2063, it is expected to reach its peak capacity of one crore passengers.

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