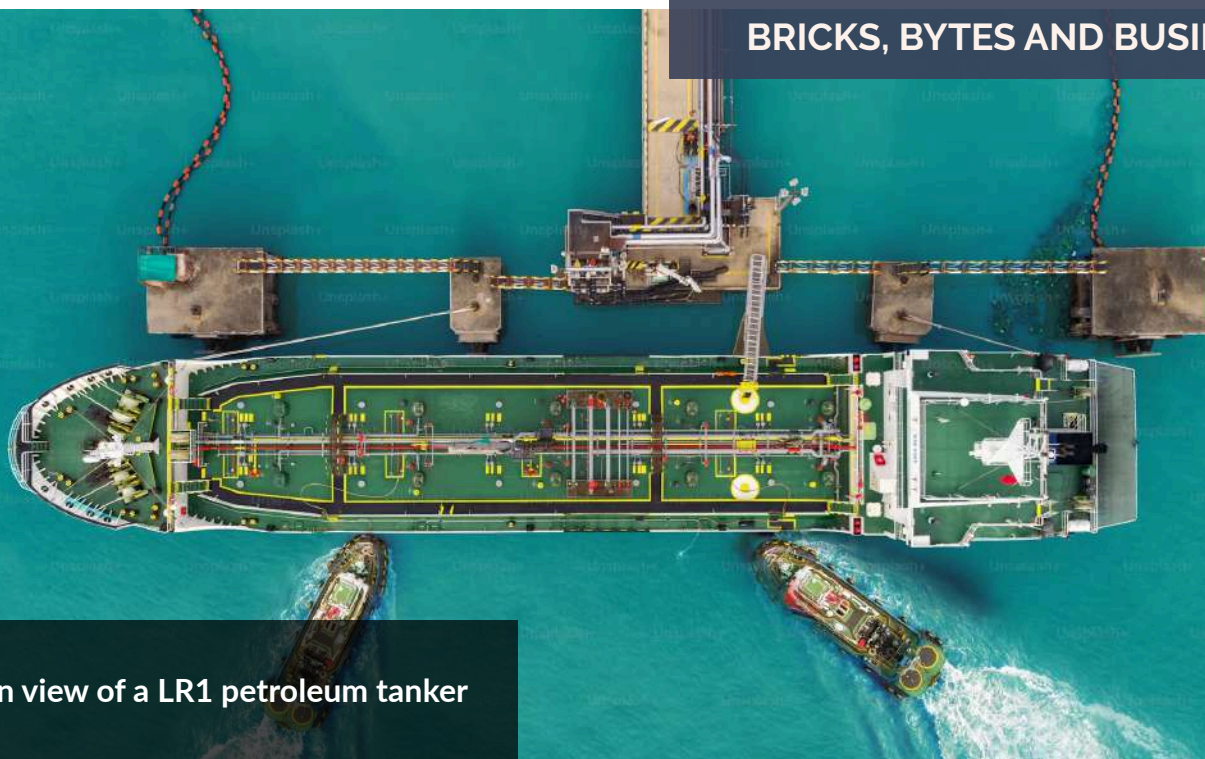


# INFRAINSIGHTS

BRICKS, BYTES AND BUSINESS



Top-down view of a LR1 petroleum tanker

## INFRABytes

### Steel Ministry eases quality rules for key domestic grades

India's Steel Ministry plans suspending quality control orders on steel grades not made domestically, easing imports for automobiles and electrical sectors. A high-level committee recommended the move after industry consultations.

### South Korea joins UAE Stargate AI project in major tech partnership

South Korea has agreed to partner with the UAE on the Stargate AI data centre cluster, contributing chips, energy infrastructure, and R&D for the massive AI campus backed by OpenAI and partners, strengthening global cooperation in advanced technology development.

### India's first bullet train set for 2027 nationwide debut

Railway Minister Ashwini Vaishnaw announced the inaugural bullet train run on a Surat-Vapi stretch in August 2027, part of the ambitious Mumbai-Ahmedabad high-speed corridor. The full line aims for completion by 2029, slashing travel times significantly and enhancing regional connectivity.

### Did you know ?

The Netherlands created the first solar bike path, SolaRoad, which generated more than 3,000 kWh in its first six months-powering streetlights and nearby homes.

### India boosts Middle East oil shipments ahead of Russia sanctions deadline enforcement

India is chartering more oil tankers, including supertankers and Suezmax vessels, to import Middle East crude as Russian sanctions take effect. Indian refiners, including Reliance Industries Ltd., shift focus to non-Russian supplies, driving higher freight rates and increased tanker bookings for late November to December shipments.



### Air India accelerates fleet overhaul with new aircraft additions to boost global operations

Air India will induct new wide-body and narrow-body aircraft next year while continuing refurbishments, maintaining capacity and improving passenger experience with upgraded interiors, Wi-Fi and premium seating. CEO Wilson noted upgrades starting February and supply-chain challenges, with major growth still expected in 2027-28.

## Wood lands strategic multi-year project management contract at Iraq's West Qurna

Wood, a global consulting and engineering company, has secured a new contract to provide project management and engineering services for PetroChina at the West Qurna 1 oilfield in southern Iraq, one of the world's largest fields by recoverable reserves. The scope covers management of engineering, procurement and construction projects, extending Wood's decade-long involvement at the site and reinforcing its role in Iraq's energy sector. Located about 50 kilometres north-west of Basra, West Qurna 1 is central to Iraq's energy security and economic resilience. Nearly 200 Wood employees in Iraq and the UAE will deliver the contract, combining global expertise with a strong local workforce to support Iraq's long-term energy ambitions.



## Private sector to drive climate resilience in Bangladesh and wider South Asia

South Asia faces escalating climate risks, with nearly 90 percent of people projected to endure extreme heat and about a quarter exposed to severe flooding by 2030, making Bangladesh one of the most vulnerable countries. A World Bank report finds that households and firms are already adapting, yet mostly through basic, low-cost measures, while urgently needed resilient infrastructure, disaster protection, and finance remain inadequate. It argues that, given tight public budgets, a larger role for private-sector investment is essential, supported by policies that expand access to credit and insurance, strengthen early warning systems, upgrade transport and digital networks, and scale climate-smart agriculture and social protection.

## Egis and Egypt sign MoU to train future railway engineers

Egis and Egypt's Ministry of Transport have signed an MoU to deliver advanced training for young engineers in railway systems and urban transport. Over two years, they will co-develop specialised programmes covering planning, design, construction, operations, safety, and maintenance, delivered through seminars, workshops, internships, and site visits. The initiative supports Egypt's large-scale investment in modern rail, high-speed lines, and mass transit, building a national talent pipeline at no cost to participating engineers.

## Japan renews crude storage deal with Saudi Arabia

Japan's state-run agency JOGMEC has extended its crude-oil storage agreement with Saudi Aramco for another three years, the companies announced on 19 November 2025. Under the extended deal, JOGMEC leases thirteen oil tanks with total capacity around 1.3 million kilolitres (about 8.2 million barrels) at a storage terminal in Japan's Okinawa prefecture owned by local refiners. The arrangement, first signed in 2010, had been renewed every three years; the latest renewal underscores Tokyo's effort to safeguard energy security.



## BP brings Cypré gas project online early in Trinidad and Tobago

BP Trinidad and Tobago brought the Cypré gas project online ahead of schedule, delivering first gas in April 2025 after completing a seven-well drilling program tied back to the existing Juniper platform 78 km off Trinidad's southeast coast in 80m water depths. This third subsea development for bpTT features four initial wells finished by late 2024, with the remaining three now drilled, completed, and commissioned. At peak, Cypré will produce around 250 million standard cubic feet of gas daily, equivalent to 45,000 barrels of oil equivalent per day, bolstering bpTT's status as Trinidad's top hydrocarbon producer at half the nation's gas output. The project sets a new benchmark for subsea cycle time, maximizes existing infrastructure, and supports bp's strategy for three more Trinidad gas projects by 2027.



## Kavach 4.0 safety system now installed on 654 km network

Indian Railways has commissioned Kavach 4.0, the advanced indigenous automatic train protection system, on 654 km of rail network as of September 2025, according to an RTI response from the Railway Ministry. The system, installed at 155 stations and 2,892 locomotives, automatically applies brakes if loco pilots exceed speed limits, significantly enhancing safety on busy and high-density routes. Key sections include the full Mathura–Nagda corridor (Kota–Mathura commissioned July 30, Kota–Nagda on October 7) and Howrah–Bardhaman (105 km) in Eastern Railway. Approved on July 16, 2024, after extensive trials of Kavach 3.2, deployment across 18 zones has gained momentum with new companies involved, despite challenges covering India's 113,000 km network and 15,000 locomotives. Officials aim for nationwide rollout in six years, with ₹351 crore spent this fiscal year alone.

## Andhra Pradesh unveils ₹66,523 Cr PPP urban infrastructure plan

Andhra Pradesh has launched a ₹66,523 crore Public-Private Partnership (PPP) program to transform urban infrastructure across 12 priority sectors by 2029, excluding Amaravati's greenfield development. Led by the Municipal Administration and Urban Development (MA&UD) Department, the initiative allocates ₹2,000 crore as Viability Gap Funding (VGF) this fiscal year to fast-track key projects. The program focuses on smart water systems, modern transit corridors, integrated mobility, housing and next-generation urban utilities. It is projected to contribute ₹2.8 lakh crore to the state's GSDP, generate 2.3 lakh direct and indirect jobs—targeting 45% skilled youth and 35% women—and attract ₹35,000 crore in FDI across eight economic zones. Major highlights include developing five IoT-enabled smart cities, upgrading 2,500 km of roads, building 15 transit systems, and enforcing green building norms. 33 PPP projects are already underway, reinforcing the Swarna Andhra 2047 vision.



## Bengaluru gets ₹1 Lakh Cr infrastructure boost

Karnataka Deputy Chief Minister DK Shivakumar unveiled ambitious upgrades for Bengaluru at the Bengaluru Tech Summit 2025, labeling the city a dynamic tech powerhouse. Key projects include extensive twin tunnels, a double-decker metro line, elevated corridors, buffer roads, the innovative SkyDeck, and the Bengaluru Business Corridor, collectively surpassing ₹1 lakh crore in investment. Plans also feature a second airport, an NRI Secretariat, dedicated residential layouts, and a vast 'AI City' township near Bidadi spanning thousands of acres. Shivakumar stressed building robust physical frameworks for innovation, urged CSR investments in rural education, and pledged full government support to industry leaders. These initiatives aim to position the city as a global tech hub.

## India launches major research initiative to boost critical minerals sector

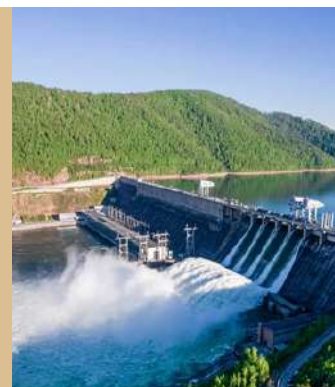
India's government has initiated a major research program for critical raw materials, led by the Anusandhan National Research Foundation alongside the Ministry of Mines. Nine elite Centres of Excellence, including IIT Bombay, IIT Hyderabad, ISM Dhanbad, and IISc Bangalore, form consortia with academic and industry partners to tackle industry challenges.



Projects advance technologies from early stages to deployment across exploration, processing, extraction, waste recovery, and recycling, enhancing supply chain resilience. Funding ties to milestones, with industry contributing a share, aiming to build domestic capabilities and secure long-term mineral supplies.

## Malshej Ghat pumped hydro project gains initial approval

An expert panel from the Union environment ministry has granted preliminary approval for a major pumped hydropower initiative by Tehri Hydro Development Corporation near Malshej Ghat in Maharashtra's Thane and Pune districts. The project, situated in the Kalu River valley close to popular trekking spots and waterfalls, will employ a closed-loop reservoir system to generate power without ongoing river water draw. The nod permits Environmental Impact Assessment studies, including water mapping, ahead of public hearings and final clearance. Developers must secure hydrological clearances and protect nearby rivulets, with a sub-committee site visit planned due to its Western Ghats location near a wildlife sanctuary. This supports India's net-zero ambitions by expanding non-fossil energy through this project.





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## Palarivattom Flyover: A Case Study in Infrastructure Failure

The Palarivattom Flyover incident remains one of Kerala's most significant infrastructure failures. Within just a few years of its opening, deep cracks appeared on girders, pier caps, and deck slabs, forcing the government to shut it down in 2019. The unexpected closure created severe traffic congestion across Kochi, causing economic losses through fuel wastage, longer travel time, and reduced commercial accessibility along the busy Edappally-Vyttila stretch. Businesses near the junction reported noticeable dips in footfall, and daily commuters faced months of delays and rerouted travel.

Technical audits found weak concrete, poor curing, and substandard workmanship as primary causes. Cracks in girders and pier caps signaled deeper issues in quality checks. Subsequent investigations revealed lapses in supervision, documentation, and material testing, raising serious concerns of negligence.

The flyover was fully demolished in 2020 and rebuilt under strict oversight from DMRC experts, eventually reopening in March 2021 with enhanced safety measures.

The incident highlights key sectors requiring stronger focus during flyover construction: material quality testing, structural design validation, third-party auditing, on-site supervision, contractor accountability, traffic-impact assessment, supply-chain transparency, and post-construction monitoring. Palarivattom stands as a reminder that resilient infrastructure demands not just engineering excellence but uncompromised governance, ethical execution, and sustained public oversight.

**MR. VIRENDRA D. MHAISKAR**  
CHAIRMAN & MD,  
IRB INFRASTRUCTURE DEVELOPERS

Virendra D. Mhaiskar is the Chairman and Managing Director of IRB Infrastructure Developers Ltd, one of India's largest highway development and construction companies. A diploma holder in Civil Engineering from Shriram Polytechnic, Navi Mumbai, he joined the family's road-construction business in 1990 at the age of 19 and went on to



transform it into a nationally renowned infrastructure powerhouse. Under his leadership, IRB executed India's first build-operate-transfer (BOT) highway project and has developed landmark expressways and toll road networks, including key stretches of the Mumbai-Pune Expressway and the Ahmedabad-Vadodara Expressway. Known for his strategic vision and execution excellence, Mhaiskar championed public-private partnership models that helped attract large-scale private investment into India's road sector. He also oversees the IRB Infrastructure Trust, which manages and monetises highway assets through an innovative investment platform. He continues to shape India's highway landscape with a strong focus on financial discipline, innovation, and timely delivery.

## INFRA Shorts

- India accelerates efforts to clear stalled national highway projects, targeting a 60 percent reduction in pending works to strengthen nationwide infrastructure development.
- India enters multi-year infrastructure super-cycle with ₹25 lakh crore market potential.
- SEBI chairman highlights that REITs and InvITs are crucial financial instruments for empowering India's large-scale infrastructure growth and investment requirements.
- DigitalBridge successfully raises nearly 18 billion dollars to support global infrastructure and digital transformation, focusing on high-growth data and connectivity assets.
- China launched the unmanned Shenzhou 22 spacecraft to the Tiangong space station to restore astronauts' safe-return capability and enhance mission reliability.
- TotalEnergies acquires a 50 percent stake in flexible power-generation assets from EPH, boosting Europe's energy portfolio and strengthening low-carbon transition initiatives.

