



A MOMENTOUS YEAR!

While the year 2023 saw the country achieving greater heights in infrastructure creation, there is still way to go towards a sustainable infrastructure network in the country. **Construction Times** explores the way forward.

As we are entering another year of opportunities and challenges, India is stepping closer to the goal of becoming the world's third-largest construction market. The growing infrastructure creation and real estate developments has created ample opportunities for construction industry in India to grow leaps and bounds. These trends also come with challenges in terms of aggregates

and construction materials, emissions, waste generation and more. Going ahead we need to address these challenges while we are aiming the bigger market globally in the coming years.

LOOKING BACK

If the year 2022 was the period of stabilizing the economy after the Covid impact, 2023 has been the year of optimism and positive

growth. The year has seen many achievements as also challenges in certain aspects. India has shown great resilience during the year compared to many major economies of the world, in the volatile global market conditions. The Union Budget 2023 was focusing on infrastructure led development which is beneficial not just for the infrastructure sector but the holistic growth of the economy. A whopping 33 per cent rise in Budget allocation for infrastructure investment capital spending has created an unprecedented opportunity for India's infrastructure growth in 2023 and the journey continues.

Some of the highlights in the roads and highways sector are as follows. According to a year-end review 2023 of Ministry of Road Transport and Highways (MoRTH), the National Highway (NH) network increased by 60% from 91,287 km in 2014 to 1,46,145 km in year 2023. Length of 4-lanes and above NH increased by 2.5 times – 18,387 km (2014) to 46,179 km (Nov'23). Average pace of NH construction increased by 143% to 28.3 km/day from 2014. Out of 108 (3,700 km) port connectivity road projects, 8 (294 km) are completed, 28 (1,808 km) are awarded and DPR under-progress for 72 (1,595 km) projects.

Some of the key expressways such as the Mumbai-Delhi have seen partial functioning during the year 2023.

The Indian railway sector has seen some significant facelift in infrastructure and services in 2023. In the Union Budget, the railway sector has been allotted Rs 2.40 lakh crore as a capital expenditure. Electrification of rail lines was a major task taken up during the year towards making railways greener. With a vision of providing eco-friendly, faster and energy-efficient mode of transportation, Indian Railways is marching ahead towards 100% electrification of broad-gauge tracks. During the calendar year 2023, Indian Railways has achieved 6,577 route km electrification. Total broad-gauge network of 61,508 route km has been electrified up to December 2023 which is 93.83 % of total broad-gauge route (65,556 RKM) of Indian Railways. On the progress of the freight corridor projects, the construction of Eastern Dedicated Freight Corridor (EDFC) from Ludhiana to Sonnagar (1,337 km) has been completed in December 2023, according to the Railway Ministry. At the same time, 1,176 km out of 1,506 km of Western Dedicated Freight Corridor

(WDFC) from Jawaharlal Nehru Port Terminal (JNPT) to Dadri has been completed. As part of the improved services on Railways, the number of Vande Bharat services has been drastically increased across the country to reach the benefit to more people.

In the airports and aviation sector, the ministry attained several milestones in the year 2023, according to a ministry report. This included 60 new RCS routes commenced in 2023; 154 new RCS routes awarded under UDAN; and 12 new RCS routes commenced in North East. In the maritime sector, India reached 22nd rank in International Shipment category as against 44th rank in 2014. Also, India jumped 6 places to rank 38 in World Bank's Logistics Performance Index 2023.

LOOKING AHEAD

The year 2024 will see some light at the end of the tunnel with the development activities taken up last year, while certain long gestation period projects like the bullet train project and the Navi Mumbai Airport project will see some major gains this year. At the same time, one of the most awaited one-of-its-kind projects, the Mumbai Trans-Harbour Link (MTHL) that connects Sewri-Nhava Sheva, has been just inaugurated by the Prime Minister Narendra Modi. This sea-bridge will provide faster connectivity between Mumbai and Navi Mumbai, further improving the connectivity to Pune. Some of the remaining key projects under execution will see major progress this year.

For the industry stakeholders, the year will be the time for gearing up to the next stage of development activities post the general elections. The focus will be on elevating service excellence, leveraging digitalization and deepening customer engagement. As the world stares at the rapid depletion of natural resources and imminent climate changes impacting the ecosystem, there will be a larger focus on environment-friendly approach and sustainable practices in construction activities. The energy sector will see more progress in renewables, underscore India's commitment to a cleaner, more sustainable energy future. Mega infra development programmes such as National Infrastructure Pipeline, Bharatmala project, Gati Shakti Master Plan, amongst others, will continue to progress throughout the year maintaining the momentum of the country's overall infrastructure development. ■

CAPTAINS SPEAK

Infrastructure development will continue to play a major role in India's growth towards leading economy in the coming years. As we enter another action-packed year, the industry captains visualize the year ahead and elaborate on how they are gearing up for the future. Excerpts:

SANDEEP GARG, Managing Director, Welspun Enterprises

It was encouraging to see the Government's continued emphasis on wide-scale infrastructure development across most sectors in 2023. Despite delays in inviting bids by certain clients, we maintain a bullish outlook on order inflows in the next few quarters. We are confident about our growth momentum in 2024 duly backed by our asset-light business model, robust order book and zero-debt balance sheet with positive cash balance. We are optimistic about government's continued focus on enhancing and advancing the country's infrastructure in 2024. In 2024 and even beyond, we will continue with our focus on deploying leading-edge digital initiatives to further strengthen project management, ensure efficient & faster execution with a focus on ESG, so as remain true to our unwavering commitment of creating value for our shareholders.



ARUN MAHESHWARI, JMD & CEO, JSW Infrastructure

Structurally India is now poised on the growth path which is fuelling on its own. Thoughtful spending on infrastructure developments in the last 5-6 years, GST introduction, increased digital foot prints resulting in improved accountability & traceability, impactful social spending, and continued efforts to uplift rural economy are all now self-propelling. Renewed confidence in the business environment, capital availability and opportunities are the similar path as what China saw three decades ago (though in a calibrated manner in our case).

India will continue to retain momentum for the coming years/decades. In recent years, we have seen several turbulences globally (COVID, Ukraine- Russia conflict, Israel-Palestine conflict, shifting political affiliations, domestic elections, Indian subcontinent changing political climates); however, India remains undeterred and continues its growth journey which in all likelihood will maintain its momentum.



AMIT GOSSAIN, Managing Director, KONE Elevators India and South Asia

India's journey in infrastructure development has been significant and according to Global Quality Infrastructure Index (GQII), it stood 10th worldwide with respect to overall quality infrastructure environment in the country. Infrastructure is a key enabler in helping India cross US\$ 4 trillion economy in 2024 and become the third-largest in next 3 to 4 years from number 5 in the world now.

In 2024, we will focus on elevating service excellence, leveraging digitalization and deepening customer engagement. Our commitment to sustainable success involves expanding our product portfolio, strengthening industry partnerships, and embracing emerging technologies. This ensures we stay at the forefront of the evolving vertical transportation landscape, delivering lasting value while contributing to a more sustainable future.



N VENU, MD & CEO, India and South Asia, Hitachi Energy

As we draw the curtain on 2023, the world stares at the rapid depletion of natural resources and imminent climate changes impacting the ecosystem. Global average temperatures were already inching above pre-industrial levels (+1.8°C), and greenhouse gas emissions reached a new high (57.4 GtCO₂e in the previous recorded year). This ongoing phenomenon has brought the world together to phase down fossil fuel usage for a sustainable future.

Over the past year, the nation has witnessed a series of pivotal developments in the energy sector, characterized by strategic collaborations, impactful policy announcements, and the achievement of significant milestones. Substantial progress has been made towards the goal of attaining 500 GW of renewables by 2030, encompassing the production and utilization of green hydrogen and the endorsement of mandatory battery energy storage at renewable projects through the launch of the Viability Gap Fund.

Today, the nation boasts an impressive 179 GW of installed energy derived from renewable sources. These multifaceted developments underscore India's commitment to a cleaner, more sustainable energy future. Moving into the new year, our grids must evolve to seamlessly integrate large variable amounts of renewables on one end and electrify various sectors on the other.

In 2024, we anticipate a continued surge in demand for solar and wind energy solutions, the electrification of mobility, the prominence of green hydrogen, the development of energy storage, and the establishment of HVDC links. Collaboration, both on national and international levels, will play a crucial role in these key trends and transformative developments, shaping the Indian energy landscape in 2024 to address the escalating energy needs of 1.5 billion people.

**PRAGUN KHAITAN, Vice Chairman and Managing Director, Jindal Aluminium**

India's commitment to global leadership is evident in its infrastructure growth. The National Infrastructure Pipeline (NIP), conceived with 6,835 projects, has evolved into a catalyst for a transformative shift, with over 9,288 dynamic initiatives now. A substantial outlay of Rs 108.88 trillion earmarked between 2020 and 2025 underscores our nation's dedication to building a robust foundation for a prosperous future.

The blend of vision and execution within this framework heralds a new era of connectivity, innovation, and sustainable development. It will also help bridge the rural-urban divide with last-mile connectivity and empower local communities. As we navigate this transformative journey to 2024, India is not merely constructing infrastructure but sculpting the future landscape of opportunities and progress.

JAYAKUMAR KRISHNASWAMY, Managing Director, Nuvoco Vistas Corp

The cement industry showed resilience and highlighted its role in economic progress. For Nuvoco Vistas, the year was a mixed bag as we successfully navigated the complex business landscape with a sharp focus on value-driven growth. India's cement demand is rising steadily, driven by the infrastructure and affordable housing sectors. It was a year of strategic shifts in the cement industry, as the sector embraced environmental consciousness and adopted sustainable practices.

According to a report from Knight Frank, the construction sector in India is estimated to employ 100 million people by 2030, up from 70.6 million, with the output reaching \$1 trillion from the current \$650 billion. Cement volumes witnessed a rise of 9-10% in 2023-24, driven by demand from infrastructure and urban housing, as noted by ICRA in October, with a notable 11-12% year-on-year increase in the first half of the year.

As we approach Year 2024, the Indian cement industry holds immense promise for sustainable growth. At Nuvoco Vistas, we are primed to seize the opportunities this year presents through our capacity building initiatives, emphasis on quality and innovation, and our ambition to secure a larger market share in the North while upholding our leadership position in the East.



V VIVEKANAND, President, Indian Construction Equipment Manufacturers' Association (ICEMA) and Managing Director, Caterpillar India

As India progresses towards a US\$ 5 trillion economy, infrastructure will continue to be the primary driver of economic growth. The Indian CE industry, being one of the key facilitators of infrastructure development in the country, is expected to contribute effectively towards the Government's vision of creating a modern and world-class infrastructure by providing new age and sustainable construction equipment for efficient and time-bound execution of strategic projects, thereby furthering the growth of the nation. Supported by the Government's mega infra development programmes such as National Infrastructure Pipeline, Bharatmala project, Gati Shakti Master Plan, amongst others, the CE industry has shown remarkable progress over the last year, registering an annual growth of 26% in FY23, and the momentum has continued in the current financial year as well, with the industry expected to grow by 15-20% in FY24.

**NIKHIL BOTHRA**, Director, EPACK Prefab

In the wake of climate change, India's steadfast commitment to sustainable infrastructure shines brightly. Initiatives such as 'Make in India' and the Production-Linked Incentive (PLI) scheme have become catalysts, fostering enhanced connectivity and facilitating rapid growth in airports, manufacturing units and warehousing. This has propelled prefabricated structures as the preferred choice in construction. Foreseeing a transformative era, composite structures are poised to revolutionize various industries, permeating multi-story constructions, data centers, and meeting the escalating demands in warehousing. Over the next few years, India will feature among the fastest-growing countries in terms of construction output, making technology intervention a key component. India is expected to become the third-largest construction market in the world by 2025 and register a CAGR of over 13% during next five years. As the industry progresses, it's set to embrace the integration of robotics into AI, aiming to significantly reduce construction time.

JOHN SLAVEN, CEO, Vedanta Aluminium

Globally, India ranks among the fastest growing economies today, and could well emerge as one of the top 3 largest economies by 2030. Delivering on this potential will require rapid and sustained infrastructure development. We therefore anticipate a sustained growth trajectory for India's construction sector, led by the government's push for high-quality, reliable infrastructure to meet the growing need, accompanied by an increased interest in sustainable infrastructure and 'green' buildings – all supported by domestically sourced raw materials. As a multi-faceted modern metal, aluminium is already a favourite of the construction sector with its advantaged strength to weight ratio, excellent formability, malleability, ductility, and infinite recyclability. Also, relative to its GDP growth rate, the country's aluminium demand intensity will also be higher than in developed economies, amplifying growth in demand. As the nation's largest producer of top-quality aluminium which enables extraordinary innovations in construction, we at Vedanta Aluminium aim to deliver solutions and materials for India's infrastructure applications, adding to its continued rise.

AFZAL HOSSAIN KHAN, President, Kalpataru Projects International -
Urban Infrastructure Division



India's momentum in infrastructure development is driven by ambitious initiatives like the National Infrastructure Pipeline (NIP) and PM GatiShakti Master Plan, bolstered by record budget allocations. While challenges persist, such as land acquisition and project delays, the overall outlook is hugely optimistic and augurs well to achieve 2047 vision for a \$40 trillion economy. Expect a continued acceleration in highways, railways, and urban infrastructure projects, with a focus on sustainability and technology integration. Our company has also recently entered the underground metro rail sector, reinforcing our commitment to sustainable urban infrastructure.

The upcoming years are poised for further advancements, leveraging the power of AI for efficient urban planning, traffic management, and energy optimization. This dual emphasis on sustainability practices and AI-driven solutions sets the stage for a progressive and technologically advanced infrastructure landscape in India.



MAHESH ANAND, President, Nippon Paint India (Decorative Division)

Nippon Paint is dedicated to achieving Net Carbon Zero, channelling our efforts in R&D and innovation towards eco-friendly formulations, consumer-centric smart paints, and circular economy principles. Beyond mere colour selection, the future of decorative paint promises a comprehensive experience by incorporating colour therapy for mental well-being. Well researched formulations are specifically geared towards crafting personalized paints that evoke positive emotions and enhance mental clarity in living spaces, seamlessly combining health, safety, and consumer connection. With a focus on overall well-being, future of decorative paints is expected to develop antibacterial paints, which will no longer be a luxury but a necessity addressing health concerns. Advanced formulations with extended efficacy, low VOC content, and eco-friendliness will be given more priority. Going beyond safety considerations, our consumer-centric approach integrates personalization, fostering a more engaging and meaningful connection with evolving preferences.

SHRINIVAS RAO, FRICS, CEO, Vestian



Despite an uncertain start to the year 2023, the Indian economy and more so, the real estate sector performed well. Government's infrastructure push increased domestic demand, corporates' back-to-work strategies, and rise in e-commerce kept the real estate market buoyant during the current year.

Rapidly changing real estate dynamics in the current year are likely to take shape as markets stabilize in 2024. Furthermore, tier-2 cities are likely to see increased traction on the back of affordability, abundance of local talent pool, and a robust pipeline of planned infrastructure projects. The future of Indian real estate sector is promising with a core focus on sustainability and innovation.