

# RIVER INTERLINKING: A LONG TERM OPPORTUNITY AHEAD

With river-interlinking unlocking a ₹80,000 crore opportunity in near-term, India's infrastructure and OEM players are set for a decade-long project pipeline.

By Team CW



Image courtesy: SPML Infra

India's renewed push on water security has turned what was once a long-gestation policy idea into a visible pipeline of capital projects. The National River Linking Project (NRLP), anchored in the National Perspective Plan framed in 1980, has moved decisively from studies to execution with the ceremonial start of the Ken-Betwa Link Project in December 2024. The Prime Minister laid the foundation stone at Khajuraho, marking the first large inter-basin transfer to enter construction under the national programme. Official sources confirm that the Ken-Betwa link alone entails a 221-km canal, the Daudhan dam complex and associated tunnels and powerhouses, with a sanctioned cost of

about ₹44,605 crore and targeted benefits of irrigation for over 10 lakh hectares, drinking water for more than 60 lakh people and hydropower generation of over 100 MW.

Beyond this pathfinder, the Ministry of Jal Shakti and the National Water Development Agency (NWDA) have identified 30 links—14 in the Himalayan component and 16 in the peninsular component. Pre-feasibility studies are complete for all 30, feasibility reports for 26 and detailed project reports for 13 links according to recent data. Government disclosures and independent trackers put the long-term capital requirement for the full programme at around ₹5.5 lakh crore, with industry-facing EPC and construction

opportunities estimated between ₹2 lakh crore to ₹2.6 lakh crore over the next decade.

For contractors and equipment makers, this is not just another irrigation cycle. These are multi-year, multi-package corridors that combine heavy civil works, long-distance conveyance, tunnelling, pumping and power infrastructure, and extensive rehabilitation and environmental mitigation. The five industry players interviewed by Construction Week see this as one of the most consequential infrastructure opportunities of the coming decade, albeit one layered with political, environmental and execution risk.

Abhinandan Sethi, Managing Director, SPML Infra, frames the opportunity in terms of scale and continuity. "River-interlinking and bulk water-transfer projects in India offer strong long-term growth opportunities for water infrastructure companies," he says. "Over the next decade, EPC investments in river-interlinking projects are estimated to cross ₹2.6 lakh crore, as per ICRA estimates, with around ₹80,000 crore to be tendered in the next four years."

## PROJECT PIPELINE

While Ken-Betwa dominates headlines, the broader pipeline is beginning to take shape. Investment Information and Credit Rating Agency (ICRA) and National Water Development Agency (NWDA) have identified four priority links that are expected to drive near-term contracts. These are

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Ken-Betwa (located in Madhya Pradesh and Uttar Pradesh), Kosi-Mechi (Bihar), Parbati-Kalisindh-Chambal (Madhya Pradesh and Rajasthan), and Godavari-Cauvery (Telangana, Andhra Pradesh, and Tamil Nadu). Other national-level schemes such as Daman Ganga-Pinjal in Maharashtra or the state-level schemes such as Upper Bhadra in Karnataka are also progressing in parallel, often blurring the line between national interlinking and large water-transfer projects.



Ken-Betwa project map

Yogen Lal, CEO – Business Development and Strategy, Welspun Enterprises, points to a clustering of tenders over the next few years. "According to a 2024 ICRA report, the four priority interlinking river projects could unlock up to ₹2 lakh crore in business opportunities for EPC companies over the next decade, with around ₹80,000 crore expected to be awarded in the next four years," he notes. "This includes dams, canals, reservoirs, tunnels and pipelines."

Industry experts note that the national programme is now complemented by state-driven bulk transfer and lift irrigation schemes that mirror the complexity of inter-basin links. Projects like Kaleshwaram in Telangana and Konkan water transfer schemes in Maharashtra show that the market is broader than just the four national priority links. For EPC players, this means a sustained order book across geographies rather than dependence on a single mega project.

From a planning standpoint, NWDA data and Ministry of Jal Shakti updates show that several links—such as Par-Tapi-Narmada and Damanganga-Pinjal—have completed detailed project reports and are awaiting final inter-state agreements and clearances, while others like Godavari-Cauvery are in advanced DPR stages. The sequencing is important: it determines

“As of January 2026, several river-interlinking or water-transfer projects in India are active or progressing toward execution under the NWDA's National Perspective Plan (NPP).”

**Yogen Lal**, CEO – Business Development and Strategy, Welspun Enterprises

whether the market sees a steady flow of ₹5,000–₹10,000 crore packages or long gaps between mega awards.

#### EPC OPPORTUNITY

The structure of river-interlinking projects creates EPC opportunities across the value chain. Long



**Yogen Lal**, CEO – Business Development and Strategy, Welspun Enterprises



Bulk water supply: 3000 MM diameter pipeline (Gujarat)

Image courtesy: SPML Infra



Polavaram dam construction on Godavari (Andhra Pradesh)



**Shailendra Kumar Tripathi**, Deputy Managing Director, Kalpataru Projects International Ltd (KPL)

canals, often concrete-lined or HDPE-lined, run into thousands of kilometres across the national programme. Large storage dams and barrages are fewer in number but high in value, with individual contracts often exceeding ₹3,000 crore. Tunnelling, particularly in peninsular links, adds geotechnical complexity, while lift irrigation and pumping stations integrate heavy electrical

and mechanical works.

Shailendra Kumar Tripathi, Deputy Managing Director, Kalpataru Projects International Ltd (KPL), sees canal construction and pumping infrastructure as early winners. "From our perspective, canal construction remains the largest opportunity by sheer volume. We are talking about thousands of kilometres of lined canal networks across various links. The specialised nature of long-distance conveyance systems, particularly concrete-lined and HDPE-lined canals with capacities ranging from 50 to 500 cumecs, provides strong scope for experienced players," he says.

Tripathi adds that topography will drive demand for lift systems. "Pumping infrastructure represents a growing segment given India's terrain. Large-capacity pump houses, rising mains and associated electrical infrastructure offer integrated opportunities combining civil, mechanical and electrical disciplines. These are not simple irrigation pumps; they are high-head, high-energy installations that require strong engineering depth."

SPML's Sethi echoes this integrated view, linking water transfer to power and digital systems. "Large pumping stations, electrification and SCADA systems will be critical for lifting and managing water across river basins," he says. "There are also opportunities in integrating

hydropower, solar power and even battery energy storage systems to stabilise supply. Over time, these canal networks can also support inland navigation and related infrastructure, adding another layer of value."

For equipment makers, the opportunity is equally significant. River-interlinking projects are among the most equipment-intensive civil works currently underway in India. They demand fleets of medium to large excavators, articulated and rigid dump trucks, soil compactors, and material handlers over sustained periods.

Dimitrov Krishnan, managing director, Volvo Construction Equipment India highlights the duty cycle challenge. "Large water-transfer projects and river interlinking are some of the most equipment-heavy infrastructure projects currently being implemented in India," he says. "They involve massive volumes of canal excavation, embankment and reservoir construction, which means sustained demand for medium to large excavators, dump trucks and compactors over several years rather than short procurement bursts."

He adds that these projects place unique demands on machines. "River interlinking project customers expect to use equipment under very heavy operating cycles, with long hours and little downtime. They want durable equipment with predictable performance under high temperatures and tough site conditions. The strength of the service and aftermarket ecosystem becomes just as important as the machine itself in keeping projects on schedule."

#### EQUIPMENT INTENSITY

The corridor-style execution of interlinking projects differentiates them from conventional dams or irrigation canals. Multiple work fronts open simultaneously across tens or hundreds of kilometres, requiring decentralised fleets and mobile service infrastructure. This changes how contractors plan capex and how OEMs deploy support.

Krishnan explains the operational reality. "These projects typically consist of multiple packages that develop in varying lengths along the corridor. Earthmoving and compaction equipment operates simultaneously over long stretches, often in remote locations. From an OEM perspective, logistics, parts availability and trained service personnel become critical. Uptime will dictate productivity more than headline machine specifications."

He also points to the gradual introduction of digital tools. "Alongside core earthmoving, there is growing interest in digital monitoring and fleet management solutions. Contractors want better visibility into fleet efficiency and maintenance.

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Dimitrov Krishnan, Managing Director, Volvo Construction Equipment India



Daman Ganga river (Maharashtra)



Bhalchandra Murarka, CEO, Choice Consultancy Services

"Per capita water availability has declined from 1,486 cubic meters in 2021 and is projected to fall to 1,367 cubic meters by 2031."

While full automation may be some way off, productivity and lifecycle management tools will see higher uptake in these long-duration projects."

For contractors, this intensity affects working capital and asset strategies. Unlike road projects, where equipment can be redeployed relatively easily, canal corridors tie up fleets for years. This makes partnerships with OEMs and rental providers more strategic, and pushes larger players to invest in in-house maintenance and training.

#### POLICY AND FINANCE

At the policy level, the central government has committed to funding 60 per cent of approved national interlinking projects, with the balance coming from states. This model reduces some counterparty risk for contractors but introduces its own complexities, particularly for fiscally stretched states.

Welspun's Lal draws a comparison with other infrastructure sectors. "In water infrastructure projects like ILR, risk allocation in EPC modes is similar to roads and rail in that construction and design risks sit with the contractor, while demand and revenue risks largely sit with the government," he says. "However, the social and environmental dimensions are more pronounced. Payments are milestone-based, but delays in clearances or inter-state issues can slow cash flows in a way that is less common in mature road EPC models." He also notes that innovative financing could become more relevant as the programme scales.

Given the capital intensity, there is a case for blending budgetary support with multilateral funding, green bonds, and climate finance. Water security and climate resilience are increasingly aligned themes, and that could open new pools of capital over time, as industry players observe.

Bhalchandra Murarka, CEO, Choice Consultancy Services places the programme in a broader, macro-level context. "India stands at a watershed moment. The World Economic Forum has identified water supply shortage as the most severe risk confronting our nation," he says. "Per capita water availability has been declining steadily, and by some estimates India's water demand could be twice the available supply by 2030. In that context, the National River Linking Project is not just an infrastructure programme; it is an economic and social imperative," he adds.

Murarka also points to international precedents. "China's South-North Water Transfer Project, which moves over 40 billion cubic metres annually, shows that large-scale inter-basin transfers are technically feasible but come with environmental and social trade-offs."

The challenge for India will therefore be to adapt these lessons to its own federal structure and ecological sensitivities.



Hogenakkal located Dharmapuri district Tamil Nadu borders

### EXECUTION HURDLES

If opportunity is clear, so are the bottlenecks. Land acquisition, environmental and forest clearances, inter-state consensus and geological uncertainty remain the primary constraints on faster rollout. The Ken-Betwa project itself has faced sustained scrutiny over its impact on the Panna Tiger Reserve, even as the government has announced integrated landscape management and wildlife mitigation plans. Official updates indicate that environmental clearance has been granted with conditions, but litigation and public interest challenges remain a feature of large water projects.

Tripathi is blunt about the on-ground implications. "Land acquisition remains the primary challenge. Multi-state projects face jurisdictional complexities with varying state-level compensation and rehabilitation frameworks. Delays of 18 to 36 months beyond scheduled timelines are common, directly impacting contractor mobilisation and cash-flow planning," he says.

He adds that underground works introduce another layer of risk. "Geological surprises in tunnel and underground works are significant. Actual ground conditions often deviate from DPR assumptions, leading to variation claims and time extensions. Given the exploratory nature of investigations across vast corridors, this risk is difficult to price accurately at tender stage."

A few industry experts also underline the political dimension to this. Inter-state water-sharing disputes create legal and political uncertainty. Even cleared projects can face periodic litigation or political resistance that stalls work mid-execution. The absence of a robust,

binding national consensus framework on water allocation means that execution risk remains high and, in many cases, uninsurable.

From an OEM perspective, remoteness compounds these issues. Krishnan notes that service readiness is often underestimated. "Most river-interlinking locations are significantly distanced from existing industrial and service infrastructure. Transporting machines, commissioning them and providing ongoing support is challenging. Contractors need assurance on spare parts availability and rapid response capabilities across dispersed geographies. Without that, even the best-planned projects can lose productivity."

### OUTLOOK 2026

River interlinking and bulk water transfer are no longer abstract policy debates. They are becoming concrete, capital-intensive projects that will test the capabilities of India's infrastructure ecosystem—from EPC majors and equipment OEMs to regulators, financiers and state administrations.

The start of Ken-Betwa has created a reference point for financiers, contractors and state governments. As more DPRs are finalised and inter-state agreements signed, the market is likely to see a clustering of tenders, particularly in canal construction, pumping systems and associated power infrastructure.

The next five years will determine whether the sector can convert a ₹2-lakh-crore headline opportunity into a sustainable, executable pipeline that delivers both commercial returns and long-term water security. ■