

“

Our government has laid a strong foundation for a developed Odisha through decisive governance, rapid industrialisation and infrastructure expansion. Our goal is to transform Odisha into a major contributor to Viksit Bharat 2047.

We are now shifting our focus from attracting investments to ensuring their timely execution.

”



- Shri Mohan Charan Majhi
Honourable Chief Minister of Odisha



Odisha Secures ₹66,392 Crore Investment Proposals in Delhi Outreach

Odisha has attracted investment proposals worth ₹66,392 crore, with the potential to generate around 54,135 jobs, following a two-day investment outreach programme in the Delhi-NCR region. The initiative, led by Chief Minister Mohan Charan Majhi, focused on attracting fresh investments and strengthening Odisha's position as a preferred industrial destination. During the programme, the state signed 38 MoUs involving ₹64,703 crore, while additional Investment Intention Forms worth ₹1,689 crore were received.

The proposed investments span key sectors including manufacturing, textiles, engineering and aluminium, supporting

industrial expansion and employment generation. Majhi held meetings with leading investors and industry representatives and also visited Haier's manufacturing facility in Noida to explore opportunities for developing a white-goods manufacturing ecosystem in Odisha. The outreach included 46 high-level meetings involving 208 industries, highlighting growing investor interest in the state. The government also emphasised timely project implementation, strengthening local supply chains and creating employment opportunities, signalling a shift from merely attracting investments to ensuring their effective execution on the ground.

Adani SEZ Commissions Mechanised Loading System



Adani Ports and Special Economic Zone has commissioned a mechanised loading system at Export Terminal Berth 4 of Dhamra Port in Odisha, marking a new operational milestone for the facility. The system commenced commercial operations with the successful handling of MV

APJ JAOUAD. The new mechanised facility is expected to enhance bulk cargo-handling efficiency, accelerate vessel turnaround and improve the reliability of export operations. Located on Odisha's eastern coast, Dhamra Port serves the mineral-rich hinterland of eastern India and plays an important role in the movement of bulk and industrial cargo. The upgraded infrastructure is also expected to streamline cargo evacuation and strengthen the port's ability to handle growing trade volumes. The development reflects the increasing adoption of technology-driven mechanisation in Indian ports to improve productivity, safety and supply-chain efficiency.

PPA Plans Shipbuilding Cluster and Cruise Terminal

The Paradip Port Authority (PPA) has outlined an ambitious roadmap to strengthen Odisha's maritime and coastal economy during a meeting of the Inter Media Publicity Coordination Committee (IMPCC) in Paradip. PPA Chairman P.L. Haranadh highlighted Paradip's growing role as a major industrial and maritime hub and announced several key infrastructure initiatives. A satellite port at Bahuda in Ganjam district is planned, featuring a 150-million-tonne-capacity container terminal aimed at serving the hinterlands of Odisha, northern Andhra Pradesh and Chhattisgarh while supporting international trade corridors. The PPA also plans to establish a shipbuilding and ship-repair cluster in Kendrapara, expected to generate employment and develop skilled manpower. In addition, a modern cruise terminal at Puri is being advanced to promote coastal tourism and international connectivity, linking Puri with Konark and Chilika as part of a maritime tourism circuit.

These projects underline Odisha's growing focus on expanding port infrastructure, trade connectivity, maritime industries and coastal tourism, while creating new opportunities for investment, employment and regional economic development.



MESSAGE

I am delighted to learn that **Maritime Gateway**, in association with the **Government of Odisha**, is organizing the **Smart Logistics Summit 2026** on 13 August 2026 at Taj Vivanta, Bhubaneswar.

Odisha is fast transforming into one of India's most strategic maritime and industrial growth powerhouses. Backed by our 575-kilometer coastline, the visionary goal to expand port capacity to 500 MTPA by 2047, and the thriving Dhamra–Paradip–Gopalpur corridor, our state is firmly positioned as a premier gateway for domestic and international trade. With Paradip Port leading the nation in cargo handling, we are witnessing unprecedented momentum across key industrial sectors. Anchored around the apt theme, "Gateway to the East: Building Odisha's Smart Maritime–Logistics Future," this summit brings together visionary leaders, policy-makers, and industry pioneers from across the ports, shipping, manufacturing, and technology sectors. I am confident that the deliberations will forge practical strategies to strengthen Odisha's status as a leading logistics hub for India and the ASEAN region.

I extend my best wishes to the organizers and all participating delegates for a successful and impactful summit.



SHRI SAMPAD CHANDRA SWAIN
 MINISTER OF STATE (Ind. Charge)
 Industries, Skill Development &
 Technical Education, Odisha

Office: (0674)-2530650 | Phone: EPABX: 2322197
 Res.: (0674)-2953020 | Assembly: (0674)-2392992
 Email: minind2024@gmail.com



MESSAGE

It gives me great pleasure to know that the **Smart Logistics Summit 2026 is being organised by Maritime Gateway on 13 August 2026 at Taj Vivanta, DN Square, Bhubaneswar**. On behalf of the Government of Odisha, I extend a warm welcome to industry leaders, innovators, and decision-makers who are shaping the future of India's logistics and maritime landscape.

Odisha stands at a transformative juncture. With a 575 km coastline, Paradip Port rising as India's leading cargo-handling port, port capacity expanding towards 500 MTPA by 2047, and over ₹2 lakh crore invested in green hydrogen, ammonia, steel, EVs, and petrochemicals, our State is rapidly becoming India's most strategically positioned maritime industrial State. The Dhamra–Paradip–Gopalpur coastal belt is evolving into a world-class multimodal logistics corridor.

The Smart Logistics Summit 2026 will serve as a high-level strategic dialogue platform, bringing together the brightest minds from ports, shipping, manufacturing, green energy, infrastructure, and finance. Through focused sessions on Port-led Industrialisation, the Coastal Industrial Corridor, Green Ports & ESG, Supply Chains, and the Container Ecosystem, the Summit will chart a bold roadmap for technology-driven, sustainable, and competitive logistics — one that connects Odisha's industrial heartland to global markets.

I urge all industry leaders, innovators, and decision-makers to actively participate as speakers, panellists, sponsors, or delegates, and to support in making this Summit a landmark event on India's maritime calendar whose engagement will not only enrich the deliberations but also open new avenues for investment, partnership, and growth in one of India's most dynamic States.

Odisha's ambition is clear — to be India's Maritime Gateway to the East and ASEAN. Together, let us build the smart logistics ecosystem that turns this ambition into reality. I look forward to welcoming all the industry leaders, innovators, and decision-makers to Bhubaneswar in August 2026.


(HEMANT SHARMA)

Industries Department, Government of Odisha
 Kharavela Bhavan, Bhubaneswar-751001, Odisha, INDIA
 ☎ +91-674-2536640, 2390253
 ✉ indsec.or@od.gov.in 🌐 www.investodisha.org

Paradip International Cargo Terminal

Strengthens Multi-Cargo Capabilities

PICT's FY 2025–26 performance combines infrastructure growth, cargo diversification and digital innovation.



Paradip International Cargo Terminal (PICT) Pvt Ltd, operated by the J.M. BAXI Group, has been steadily expanding its role at Paradip Port. The terminal was developed on a Build-Operate-Transfer (BOT) basis to handle both international and coastal cargo. PICT has a total installed handling capacity of 5.4 MMT, including 3.5 MMT of bulk and break-bulk cargo and 1.9 MMT of container cargo, equivalent to around 1,14,000 TEUs. In FY 2025–26, the terminal handled 4.2 MMT of cargo. This included 3.7 MMT of bulk and break-bulk cargo and 30,000 TEUs of containerised cargo, equivalent to approximately 0.51 MMT. With its mix of cargo-handling facilities, rail connectivity and growing use of digital systems, PICT is catering to a wider range of commodities. Its expanding operations are also adding to Paradip's importance as a key gateway for Odisha's industries and EXIM trade.

Capacity Enhancement and Modern Infrastructure

A key infrastructure milestone during the year was the commissioning of a 100-tonne electrified Harbour Mobile Crane (HMC) on 10 April 2025. The addition strengthens PICT's equipment capability and supports more efficient handling of diverse cargo streams.

Operationally, the terminal recorded an average vessel turnaround time of approximately 77 hours, or 3.2 days, during the financial year.

Expanding Cargo Diversity

One of PICT's defining strengths in FY 2025–26 was the expansion of its cargo portfolio across bulk, break-bulk and containerised segments. The terminal added new break-bulk cargo types such as stainless steel HR coils and electrolytic manganese flakes, while its container segment saw an expanded commodity mix including colemanite, spices, glass products, garments, nickel cathodes, PVC materials and TMT rebars. This diversification has widened PICT's customer base and enhanced its ability to support the evolving cargo requirements of industries in and around Odisha.

Strong Customer Base and Business Expansion

The terminal also strengthened its commercial standing by securing business from several major industrial players, including Tata Steel, Jindal Steel & Power, Jindal Stainless, Steel Authority of India, Orissa Metaliks and Vedanta Aluminium. The presence of these leading steel, metals and aluminium companies underscores PICT's

role in supporting Odisha's industrial and EXIM ecosystem, with its multi-cargo capabilities offering customers an integrated cargo-handling platform.

Digitalisation and Technology-Driven Operations

Technology has been central to PICT's operating strategy this year. The terminal implemented FVCC (Field Verification of Critical Control), a digital application designed to strengthen operational control and monitoring. It also integrated an AI-based Wagon Monitoring System, Wagon.AI, with the railway system, enhancing wagon visibility and improving coordination across rail-linked cargo movement.

Recognition for Operational Performance

PICT's performance was further validated by the Paradip Port Authority, which named the terminal the 3rd Best PPP Operator for FY 2025–26 — recognition of its contribution to cargo handling, operational efficiency and the broader port ecosystem. The terminal's continued emphasis on technology, cargo diversification and operational efficiency illustrates how modern terminal infrastructure can play a critical role in strengthening supply-chain performance and driving the growth of India's maritime trade.

Odisha's Industrial Leap: From Mineral Roots to a Tech-Driven, Green Growth Engine

In Conversation with Mr Hemant Sharma, IAS, Additional Chief Secretary, Industries Department, Government of Odisha

How is Odisha diversifying its industrial mix beyond metals and mining into green energy, petrochemicals, electronics and semiconductors?

Odisha is undergoing a structural economic shift, deliberately transitioning from a mineral-dependent economy to a high-technology and clean energy hub. The state's investment profile reflects this; out of the recent ₹25,000 crore grounded investments, approximately ₹20,000 crore is directed toward diversified, non-metallurgical sectors such as chemicals, petrochemicals, recycling, engineering, and precision manufacturing. To aggressively capture the technology and hardware markets, Odisha has implemented the Pharmaceutical and Medical Devices Policy 2025 and the Electronics Component Manufacturing Policy 2025, which directly support India's Semiconductor Mission through capital subsidies and pre-allotted land parcels. Furthermore, large-scale clean energy pipelines—including significant green hydrogen projects by ACME and Avaada at the Gopalpur Special Economic Zone (SEZ)—are altering the industrial matrix. Our primary target is to convert at least ₹5 lakh crore of investment proposals into tangible, grounded projects by March 2026, ensuring that the future growth engine of Odisha is built on high-value, tech-driven, and green industries.

What steps are being taken to spread manufacturing and MSME activity to every district of Odisha?

The state government is addressing regional economic imbalances through a mandated policy of industrial decentralisation. Currently, meaningful industrial activity is concentrated across roughly eight districts, but the administration has set a hard target to spread functional manufacturing ecosystems into all 30 districts by 2029. To execute this, the Odisha Industrial Infrastructure Development Corporation (IDCO) is actively

acquiring and preparing plug-and-play land banks to set up micro, small, and medium industrial clusters in rural areas. Infrastructure expansion is being closely aligned with crucial logistics routes, notably the Western Odisha Expressway and the upcoming Raipur–Rourkela–Ranchi (RRR) industrial corridor. These localized parks are financially backed by the state's Industrial Infrastructure Development Fund (IIDF), which subsidizes essential utilities like dedicated power lines and water supply, lowering the entry barriers for local entrepreneurs and guaranteeing inclusive job creation.

How is Odisha positioning itself for textiles, food processing and other job-intensive industries, while tapping the skilled Odia workforce across India?

Odisha is prioritizing high-employment-elasticity sectors like textiles, apparel, and food processing by designating them as core "Thrust Sectors" under our industrial policy framework. To trigger massive job creation, the State offers structured fiscal incentives, including premium land at concessional rates for manufacturing units that employ more than 200 to 1,000 Odisha-domiciled skilled workers. Mega investments such as Epic Group (Trimetro Garments), SAPL, the apparel production unit at Khordha, Page Industries at Cuttack, and the Varun Beverages soft drink processing unit at Khordha, among others, and upcoming national brands, which create direct employment for thousands of rural women, prove the viability of this strategy. Crucially, the Government is mapping the database of skilled Odia migrant workers currently stationed in textile hubs like Surat, Tiruppur, and Bengaluru. By providing high-quality domestic infrastructure and port-led logistics networks at Paradip Port, Gopalpur, and Dhamra, we are successfully incentivizing national manufacturers to establish factories right here in Odisha, creating a clear



HEMANT SHARMA, IAS
ADDITIONAL CHIEF SECRETARY, INDUSTRIES
DEPARTMENT, GOVERNMENT OF ODISHA

pathway for our skilled diaspora to return home.

How are reforms like GO-SWIFT 2.0 and the updated Industrial Policy Resolution improving investor experience and cutting timelines?

The state's administrative machinery has undergone a total digital overhaul to drastically optimize the ease of doing business for corporate investors. Upgrades rolled out via the GO-SWIFT 2.0 single-window platform enable seamless, end-to-end processing and automated tracking of over 34 critical Government-to-Business (G2B) services across 15 distinct state departments. Land procurement has been entirely demystified through the GO-PLUS GIS application, which acts as a virtual supermarket for industrial land, allowing foreign and domestic firms to evaluate and select encumbrance-free plots instantly. Concurrently, the synchronized GO-SMILE inspection portal eliminates arbitrary regulatory friction by replacing random physical agency audits with a unified, transparent compliance framework. By combining these digital systems with 100% stamp duty and registration exemptions on priority land allotments, Odisha has shortened the average timeline from an investment "Intent" to physical ground-breaking down to under 180 days.



How is Odisha driving greater value addition in mining while pushing industries toward sustainability and renewable energy?

While Odisha holds an ironclad position as India's leading producer of metallic minerals, the current policy strictly discourages raw mineral exports in favor of mandatory domestic value addition. Our objective is to process ores entirely within the state borders, steering heavy industry toward long-term environmental sustainability. Under current energy directives, heavy industrial setups consuming , renewable power receive a 100% exemption on Electricity Duty for 20 years, alongside a full reimbursement of state transmission and wheeling charges for captive clean energy consumption. Furthermore, the state provides capital assistance of up to ₹10 crore per unit for the adoption of green technologies, carbon-mitigation equipment, and circular economic practices like Zero Liquid Discharge (ZLD) systems. These mechanisms are aggressively driving the decarbonization of our core metal industries, aligning them with global Environmental, Social, and Governance (ESG) standards while protecting the state's natural ecology.

What's the strategy for using anchor FDI projects to catalyse downstream industries, employment and technology transfer?

The state's core strategy relies on leveraging multi-billion-dollar anchor investments to cultivate massive local downstream engineering and ancillary clusters. Major projects such as AM/NS India's mega steel plant in Kendrapara and JSW's massive integrated steel and electric vehicle (EV) manufacturing facilities act as primary economic multipliers. For every direct job generated within these mega anchor units, approximately 3.5 indirect jobs are created within the local MSME and supply chain ecosystem. To enforce technology transfer and upgrade local human capital, the state mandates that these large-scale FDI and domestic projects partner with premier local technical institutes like IIT Bhubaneswar, NIT Rourkela, and IIIT. This ensures that global manufacturing practices and precision engineering technologies are absorbed directly into our local workforce, creating an independent, self-sustaining industrial economy.

How does inter-departmental alignment help Odisha compete as an agile industrial hub against established manufacturing regions?

Odisha's primary competitive advantage over traditional industrial states is our absolute institutional alignment and policy predictability. This inter-departmental synergy recently earned Odisha recognition as one of the Top Large States in NITI Aayog's Investment Friendliness Index. Through a unified governance model, the High-Level Clearance Authority (HLCA) bridges the Industries Department directly with Energy, Water Resources, Forest, and Finance departments, allowing the state to clear massive multi-sector projects in single, coordinated sittings. By removing hidden transaction costs and delivering industrial power tariffs that are significantly more competitive than alternative manufacturing hubs like Maharashtra or Gujarat, Odisha successfully outcompetes established regions as India's most agile industrial destination.

Odisha's Port-Led Industrial Rise: Building Global-Scale Chemical, Green Hydrogen and Manufacturing Hubs

*In Conversation with Aboli Sunil Naravane, IAS, Managing Director, Industrial Promotion
& Investment Corporation of Odisha Limited*

How would you describe Odisha's industrial trajectory over the last 2–3 years — what's changed qualitatively?

The biggest change is the quality and diversity of investments coming into Odisha, as we shift from a resource-based economy to value-added manufacturing in specialty chemicals, petrochemicals, semiconductors, pharmaceuticals, green hydrogen, technical textiles and renewable energy equipment. Over the past two years, Odisha has attracted projects worth nearly ₹9.5 lakh crore with employment potential exceeding 5.9 lakh people, of which 151 projects worth over ₹3.12 lakh crore have already reached groundbreaking or inauguration. Growth is also becoming more geographically balanced across districts rather than concentrated in a few hubs. Our objective is to position Odisha as the manufacturing and investment gateway of Eastern India.

What does 'port-led industrialisation' mean in practical terms for Odisha?

For Odisha, port-led industrialisation means creating integrated industrial ecosystems around our ports rather than using them only as gateways for exports. By co-locating ports, industrial infrastructure, feedstock and downstream manufacturing, we significantly improve competitiveness and reduce logistics costs. Paradip is a good example. Around IOCL's 15 MMTPA refinery and the upcoming dual-feed cracker, we are building an integrated petrochemical ecosystem where downstream manufacturers have direct access to feedstocks such as ethylene, propylene, polyethylene and polypropylene. Similarly, Gopalpur is emerging as a chemicals and green hydrogen hub, while Dhamra is being developed as the next destination for export-oriented industries. Under the Viksit Odisha Vision, we also plan to expand Paradip



MS ABOLI SUNIL NARAVANE, IAS
MANAGING DIRECTOR, INDUSTRIAL PROMOTION &
INVESTMENT CORPORATION OF ODISHA LIMITED

Port's capacity to 300 MMTPA while increasing non-major port capacity to 200 MMTPA by 2036. Our aim is to create globally competitive industrial clusters comparable with successful international models such as Jurong.

What distinguishes Paradip, Gopalpur and Dhamra as Odisha's three coastal industrial anchors?

Each of these three coastal regions has a distinct industrial identity, and together they form the backbone of Odisha's port-led industrialisation strategy. Paradip is our integrated petrochemical and downstream chemicals hub. Anchored by IOCL's 15 MMTPA refinery, the upcoming dual-feed cracker and the PCPIR, it supports fertilizers, petrochemicals, plastics and specialty chemicals. It also houses a 200-acre Plastics Park and the CIPET Plastics Product Evaluation Centre. Gopalpur is evolving as a combined chemicals and green hydrogen hub. Alongside companies like UPL, Deepak Nitrate and SRF, it has attracted major green hydrogen investments from ACME, Avaada, Ocior and Torrent. Dhamra is our next major industrial destination, offering large contiguous land parcels, deep-water port connectivity and infrastructure for chemicals, clean energy and export-oriented manufacturing. Together,

these three clusters complement one another rather than compete.

How is IPICOL using the Paradip refinery and cracker to attract downstream chemical and plastics investment?

Anchor investments create entire industrial ecosystems, and Paradip is a clear example. IOCL's 15 MMTPA refinery, existing petrochemical units and the upcoming dual-feed cracker will supply feedstocks such as ethylene, propylene, polyethylene, polypropylene, MEG, paraxylene and butadiene, giving downstream manufacturers greater supply security and lower logistics costs. This is complemented by the 200-acre Plastics Park near the PCPIR, anchored by IOCL, along with the CIPET Plastics Product Evaluation Centre for testing and design support. The proposed Plug-and-Play Chemical Park will add pre-developed land and utilities, cutting implementation timelines and strengthening Paradip's position as one of India's leading integrated petrochemical clusters.

Are Gopalpur's conventional chemicals and green hydrogen identities competing, or complementary?

We see these sectors as highly complementary rather than competing. Globally, chemical manufacturing and green fuels are increasingly being developed together because they share common infrastructure such as ports, utilities, storage facilities and logistics networks. Co-locating them improves efficiency while reducing costs. Gopalpur already has a strong base of chemical manufacturers, including UPL, Deepak Nitrate, SRF and KIRI Industries, while major green hydrogen developers such as ACME, Avaada, Ocior and Torrent are establishing projects that will support both domestic industry and export markets. Odisha aims to achieve 1 MMTPA of green hydrogen capacity

by 2029 and 3 MMTPA by 2036, positioning green hydrogen as a key enabler for decarbonising industries such as steel, refining and chemicals while also creating export opportunities under emerging global carbon regulations.

What is Dhamra's current stage of development, and what industries is Odisha attracting there?

Dhamra Port is being developed by APSEZ as a major port of the east coast. The port capacity is being scaled up to 24 million tonnes cargo handling with additional berths for handling oil, LNG, fertilizers, containers and bulk cargo. The attached SEZ is being developed with necessary infrastructure ahead of demand so that investors have access to ready industrial land, robust connectivity and a facilitative ecosystem that enables faster project implementation. We are positioning Dhamra as a destination for chemicals, petrochemicals, plastics, green energy, downstream manufacturing and other high-value industries that benefit from port connectivity and integrated logistics.

How is the Plastics Park near Paradip PCPIR plugging manufacturers into global polymer supply chains?

The Plastics Park is central to our push beyond basic petrochemicals into higher-value downstream manufacturing. The 200-acre park, adjacent to the Paradip PCPIR, draws feedstocks such as ethylene, propylene, polyethylene, polypropylene, MEG, paraxylene and butadiene directly from IOCL's refinery and upcoming cracker. Its CIPET Plastics Product Evaluation Centre offers design and testing support, especially for MSMEs. Combined with Odisha's incentives, port connectivity and logistics, the park lets manufacturers plug into global polymer value chains while serving India's growing domestic market.

Can the Tata Steel SEZ model near Gopalpur be replicated for other sectors and locations?

The Tata Steel SEZ shows the value of implementation-ready infrastructure—over 1,400 acres with pre-approved environmental clearances, cutting project timelines and risk. Rather than replicate the exact model everywhere, our goal is to replicate its underlying

philosophy: investment-ready ecosystems that speed up project grounding and ease of doing business.

What percentage of recently signed MoUs have actually moved to land allotment or construction stage?

Our focus has always been on project grounding, not just signing MoUs, and we closely monitor every major investment through structured reviews. Over the last two years, 151 projects worth more than ₹3.12 lakh crore, with employment potential exceeding 2.4 lakh people, have already reached groundbreaking or inauguration. Large chemicals, petrochemical and green energy projects naturally take longer, given land development and statutory approvals, so we have institutionalised digital monitoring through the Chief Minister's Dashboard and inter-departmental reviews to resolve bottlenecks quickly. Our emphasis is on ensuring investments move steadily from proposal to production.

What has changed in the investor experience of getting clearances since GO-SWIFT's rollout?

GO-SWIFT has transformed the investor experience with a single digital platform covering the entire investment lifecycle—integrating over 52 Government-to-Business services across 18 departments, from approvals and land allotment to inspections and grievance redressal. It has approved more than 4,000 applications worth over ₹23.75 lakh crore. What has changed is predictability and speed: investors now use one interface instead of navigating departments separately, backed by GO-SMILE for inspections and the AIM Portal for incentive disbursement. We are further upgrading the platform to make the process even more seamless.

How does IPICOL's data-driven investor targeting system work, and what triggers intervention when a project lags?

Investor outreach today is far more proactive and data-driven—instead of waiting for enquiries, we identify and engage companies based on sectoral trends and strategic fit with Odisha's strengths. Our CRM platform, GO-ACE, tracks investor interactions from first engagement to project grounding, enabling customised support and faster issue resolution. This has sharpened our outreach across

chemicals, semiconductors, renewable energy, green hydrogen and advanced manufacturing.

How does Odisha's solar manufacturing base connect to its own renewable energy goals versus exports?

Renewable energy manufacturing builds naturally on Odisha's industrial base, port connectivity and land availability. We are promoting investment across the value chain—solar modules, cells, ingots, wafers and electrolyzers—with companies like Waaree Clean Energy and Surya International already setting up here. As India scales its solar manufacturing capacity, Odisha is well positioned to integrate this with its growing green hydrogen and export-oriented ecosystem.

Are you seeing genuine long-term commitments from global green hydrogen offtake buyers, or is interest still speculative?

Odisha's real advantage lies in its integrated ecosystem—renewable energy potential, deep-water ports, industrial demand and export connectivity—ideal for large-scale green hydrogen and ammonia production. We have already attracted developers such as ACME, Avaada, Ocior and Torrent, while existing steel, refining, chemicals and fertiliser industries provide strong domestic demand and our ports enable exports. Under the Viksit Odisha Vision, we aim for 1 MMTPA of green hydrogen capacity by 2029 and 3 MMTPA by 2036, positioning Odisha as a leading production and export hub.

How urgently is Odisha's industrial base adapting to CBAM and similar carbon mandates?

Odisha is aligning its strategy accordingly, focusing on green hydrogen, renewable energy, green steel, low-carbon chemicals and carbon capture technologies such as ReNew E-Fuels' carbon capture initiative. This transition matters most for export-oriented sectors like steel, aluminium and chemicals as global markets adopt mechanisms such as CBAM. By integrating clean energy and sustainable practices, Odisha aims to keep its industries competitive internationally while contributing to India's net-zero goals.

Paradip's Great Leap

Inside India's Fastest-Scaling Major Port

How a five-year run of capacity addition, coastal cargo dominance and operational discipline has turned Paradip into the benchmark for East Coast port performance



At the Secretary, MoPSW Port Review meeting on 1 July 2026, Paradip Port Authority (PPA) laid out a record few major Indian ports can match — a port that has moved from a coal-and-iron-ore workhorse to a diversified, mechanised, PPP-driven gateway now eyeing 500 MTPA by 2047.

Traffic: An 8% CAGR That Keeps Climbing

Paradip closed FY 2025-26 with total cargo throughput of 156.45 MMT, up 4.0% over the previous year and part of a sustained multi-year CAGR of roughly 8%. Momentum has carried into the new fiscal, with cargo up to May 2026 at 26.71 MMT against 26.10 MMT a year earlier. Against a rated capacity of 289.55 MTPA, the port operates at just above 54% utilisation — deliberate headroom to absorb new capacity from the Western Dock and successive mechanisation projects. The Maritime India Vision 2030 targets 240 MMTPA, while the Maritime Amrit Kaal Vision 2047 goes to 450+ MMTPA,

alongside a capacity build-out to 500+ MTPA.

Cargo Mix: Liquid Bulk Emerges as the New Growth Engine

The most striking shift in FY 2025-26 was the surge in liquid cargo, up 24.4% to 48.09 MMT, driven by crude oil and POL movements on higher refinery-linked volumes; IOCL alone accounted for 39.98 MMT of that handling. Dry bulk, still the backbone at 104.45 MMT, was mixed: thermal coal rose 2.9% to 52.67 MMT on power-sector demand, coking coal jumped 9.6% to 16.04 MMT on steel-sector strength (Tata Steel, JSPL and SAIL drove 30.23 MMT of steel inputs combined), and break bulk grew 17.3% to 3.32 MMT. Iron ore and pellets fell 20.9% to 18.26 MMT on softer Chinese demand — the one laggard in an otherwise diversifying mix. The port's 164 trading parties span 47 countries, though the top ten still account for 63.8% of volume.

Coastal Cargo: A National Leadership Position

Paradip now handles roughly 31% of all coastal cargo moved through India's major ports. Coastal volumes reached 65.81 MMT (42.1% of total cargo) in FY 2025-26, up from 59.2 MMT in FY 2023-24. Thermal coal drives this story, accounting for 72.69% of coastal cargo share over three years via five dedicated mechanised coastal berths. Coastal thermal coal movement has risen 67% over four years, aided by tariff incentives such as a 40% coastal discount and 100% Engine-on-Load rake handling. MIV 2030 targets 105 MMTPA of coastal volume, rising to 165+ MMTPA by 2047.

Connectivity and Evacuation

Rail carries the largest share of evacuation at 51%, followed by pipeline (31%), road (9%) and conveyor (8%). Projects underway, mostly due by 2027:

- New rail lines around Jarapada–Budhapank and Budhapank–Salegaon, plus a third Bhadrak–Nergundi line to decongest the

Paradip Port: Key Performance Highlights (FY 2025–26)

[Cargo handled in MMT]

Top Importers		Top Exporters		Top Stevedores	
IOCL Pipelines	35.45	RUNGTA	4.99	Orissa Stevedores	8.52
Tata Steel	10.33	AMNS	1.86	Ripley & Co.	4.01
Jindal Steel	5.90	VEDANTA	1.49	ACE Commercial	3.58

main trunk route

- Eight-laning of the 76-km Chandikhole–Paradip stretch of NH-53
- A rake examination facility via ECoRly, with a second via Konkan Railway

Operational Efficiency: Faster Ships, Bigger Parcels

Output per ship berth day has risen to 36,968 MT/day, up 4.0% year-on-year, while average parcel size jumped 23% to 70,672 MT as vessel calls grow larger and berths deepen. Median turnaround time crept up slightly to 39.6 hours from 39.0 — PPA attributes this to changing cargo mix, not declining productivity — while pre-berthing detention for port-account vessels has collapsed 97.2% to a mere 0.04 hours. Import container dwell time improved 19.2% to 57.6 hours, but export dwell time rose 11.6% to 138.2 hours, an area to watch as the South Container Berth comes online.

Financial Performance: Margins Improving as Volumes Scale

Over five years, operating income has risen from ₹1,631.74 crore to ₹2,530.14 crore while expenditure stayed nearly flat, more than doubling net surplus to ₹2,038.63 crore. The operating ratio improved from 0.41 to 0.33, and cost per ton handled fell from ₹59.11 to ₹53.48 — genuine productivity gains, not scale effects alone.

Capital and PPP spending have both outpaced the budget this year: capex hit 100.6% of target, while PPP expenditure reached ₹1,093 crore against an ₹800-crore budget — 136.6% achievement, signalling private capital flowing in faster than PPA projected.

The Expansion Roadmap: 289 to 500+ MTPA by 2047

- **By 2026:** 300+ MTPA via Western Dock Phase-1 and an 18.5m Inner Harbour draft for fully laden Capesize vessels. The ₹3,005-crore Western Dock (Jindal Paradip Port Ltd, 25 MTPA) is 72% complete and fast-tracked to December 2026, well ahead of its original 2028 target.
- **By 2030:** ~330 MTPA via Western Dock Phase-2, SQ/MPB/CQ berth mechanisation, a new South Container Berth, North Dock Complex-3/4, and a Green Hydrogen/Ammonia terminal.
- **By 2047:** 500+ MTPA under MAKV, anchored by the South-Western Dock and a new Outer Harbour project.

Berth mechanisation stands at 82% as of March 2026, headed to 100% by 2030. PPP/captive berths handle 64% of cargo today, rising to 90% by 2030 and 98% by 2047. Deep-draft berths, just three today, will expand to 12 by 2030 and 30+ by 2047.

Port-Led Industrialisation

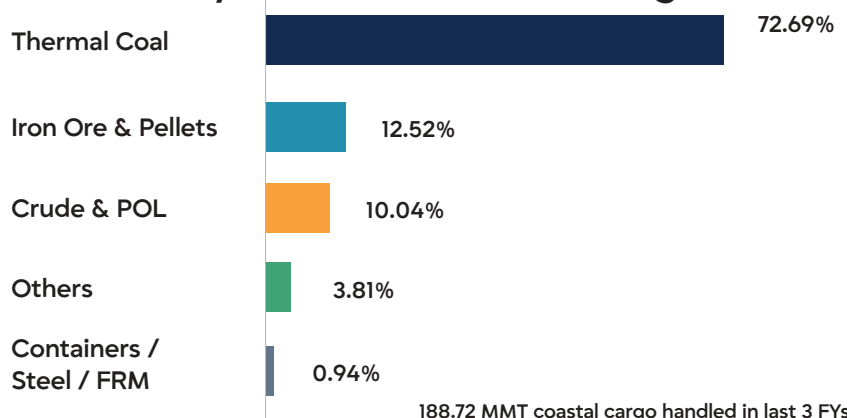
Land allotments of 769 acres have attracted ₹8,754 crore across five

projects — including pellet plants from Thriveni Earthmover and an ESSAR consortium, and a crude oil import terminal by Numaligarh Refinery — expected to draw 50 MMTPA of cargo and create 20,000–25,000 jobs. A further 154 acres are earmarked for tank farms, logistics parks and warehousing. Separately, six developers including ACME, Sembcorp, HIF and NTPC have signed MoUs worth ₹1,01,460 crore for green hydrogen and ammonia projects, with the port's own GH2/Green Ammonia terminal tendered for award by October 2026.

The Bottom Line

Paradip is executing a rare combination: double-digit productivity gains, a cargo base diversifying toward liquid bulk and coastal movement, improving margins alongside accelerating capex, and a roadmap that could triple throughput by mid-century. For a gateway that began the decade as primarily a coal-and-iron-ore port, this shift into a diversified, mechanised, PPP-anchored major port with ambitions of becoming a green hydrogen hub is one of the more compelling growth stories in Indian port infrastructure today.

Commodity Mix – 3 FY Coastal Cargo Share



Dhamra Port:

India's Rising Deep-Water Gateway for Bulk and Energy Cargo

Operated by Dhamra Port Company Limited (DPCL), a subsidiary of Adani Ports and Special Economic Zone Ltd. (APSEZ), the all-weather port has become a key logistics hub supporting Odisha's steel, mining, power and manufacturing sectors. Dhamra Port has taken another step towards modernising its cargo-handling operations with the commissioning of a mechanised loading system at Export Terminal Berth 4.

The facility has already commenced commercial operations with the successful handling of the vessel MV APJ JAOUD, marking a fresh milestone in the port's efforts to improve bulk cargo handling, vessel turnaround and operational efficiency.

Since its acquisition in 2014, it has continually expanded its cargo-handling infrastructure and hinterland connectivity, thereby strengthening its position as one of India's leading non-major ports. Located near the mineral-rich belts of Odisha, Jharkhand and Chhattisgarh, Dhamra serves as a natural gateway for coal, iron ore, limestone, steel products, fertilisers and project cargo. Its natural draft of around 17.5 metres enables it to accommodate Capesize and Panamax vessels, thereby lowering

freight costs through economies of scale. Efficient rail and road links connect the port to industrial centres such as Kalinganagar, Angul and Jharsuguda. The proposed infrastructure, including a four-lane highway to NH-16, National Waterway-5 linking Paradip, and an airstrip near Dhamra, is expected to strengthen its multimodal connectivity further.

Today, Dhamra handles dry bulk, breakbulk, containers, project cargo and liquid cargo, making it a true multi-user, multi-cargo port. The port is working towards an ambitious goal of achieving an annual cargo-handling capacity of 100 million metric tonnes (MMT) by 2030. Its proximity to Odisha's steel, aluminium and mineral-based industries reduces transport costs, improves supply chain reliability and enhances export competitiveness, making it an indispensable part of the state's industrial ecosystem.

Digitalisation, mechanised cargo handling and continuous operational improvements have reduced vessel turnaround times and enhanced productivity, aligning with the objectives of the National Logistics Policy and PM GatiShakti. Dhamra Port recently introduced a new ship loader to enhance



operational capacity and improve overall efficiency in handling growing cargo volumes. The equipment, supplied by Shanghai Zhenhua Heavy Industries Company, is expected to significantly improve vessel turnaround time as the port continues to scale up its throughput.

On 30 June 2026, Dhamra Port set a new national record, handling 132,365 metric tonnes (MT) of dry bulk cargo in a single 24-hour period. The record was achieved during the unloading of the Capesize vessel MV ASL OTSL2, which carried 165,283 MT of coking coal from Queensland, Australia, for Tata Steel. During the vessel's berthing at Berth-2, the port operations team set two national records: the highest-ever 24-hour discharge, surpassing the previous record of 127,867 MT set by MV Patragas while handling single-grade steam coal, and the fastest multi-grade turnaround, with the entire cargo discharged in 38 hours.

Recent events in West Asia have also highlighted Dhamra's strategic role in India's energy security. During Operation Urja Suraksha in 2026, LPG cargoes destined for India were rerouted, including one shipment scheduled for Dhamra, underscoring the port's growing importance in handling critical energy imports during supply-chain disruptions.

The Odisha Government's maritime vision envisages a significant expansion of non-major port capacity by 2036. Alongside Bahuda, Astaranga and Subarnarekha, Dhamra is expected to anchor a port-led industrial ecosystem supporting manufacturing, exports and coastal shipping. As Odisha strengthens its position as India's leading hub for mining, metals and manufacturing, Dhamra Port will remain central to the state's maritime and logistics ambitions.

Gopalpur Port:

Catalysing Southern Odisha's Maritime and Industrial Growth



While Paradip and Dhamra have traditionally dominated Odisha's maritime landscape, Gopalpur Port is steadily emerging as a vital gateway for southern Odisha's industrial and logistics ambitions. Strategically located in Ganjam district on the Bay of Bengal, the all-weather deep-water port has evolved into a key facilitator of bulk cargo movement, industrial development and port-led economic growth. Operated by Gopalpur Ports Limited (GPL) under the Public-Private Partnership (PPP) model, the port is increasingly becoming an integral part of Odisha's vision of developing a diversified and integrated maritime ecosystem.

Originally conceived to serve the mineral and industrial hinterland of southern Odisha, Gopalpur today handles a diverse range of cargo, including thermal coal, coking coal, iron ore, limestone, alumina, fertilisers, gypsum and project cargo. Its proximity to industrial clusters in Ganjam, Rayagada, Koraput, Kalahandi and neighbouring districts of Andhra Pradesh enables manufacturers to reduce transportation costs while improving supply-chain efficiency.

The port's strategic importance extends beyond cargo handling. Gopalpur is rapidly becoming the maritime anchor for one of eastern India's fastest-growing industrial

regions. The adjoining Gopalpur Industrial Park, developed by Tata Steel Special Economic Zone Limited (TSSEZL), has attracted investment proposals exceeding ₹65,000 crore across green hydrogen, renewable energy, speciality chemicals, advanced manufacturing, tyres and mineral processing. This growing industrial ecosystem is expected to generate substantial cargo volumes for the port over the coming decade.

Recognising the importance of seamless hinterland connectivity, the Government of India has included several Odisha port-connectivity projects under its Comprehensive Port Connectivity Plan (CPCP). In a written reply in Parliament on 12 February 2026, Union Minister Sarbananda Sonowal confirmed that the development of road connectivity from Chhatrapur on NH-16 to Gopalpur Port is under planning. The Ministry noted that improved road and rail connectivity would reduce logistics costs, promote port-led industrialisation and generate employment across the region.

Gopalpur also stands to benefit from the Centre's renewed emphasis on Sagarmala, India's flagship port-led development programme. Under the initiative, Odisha has been allocated 58 port-linked projects worth more than ₹56,000 crore, covering port modernisation, connectivity enhancement, inland waterways and

industrial infrastructure. Although these investments span the entire state, they reinforce the long-term policy commitment to strengthening Odisha's maritime logistics ecosystem, of which Gopalpur is an important component.

Operationally, the port continues to enhance its services through updated berthing policies, navigational procedures and environmental compliance measures. Regular trade notices and revised tariff frameworks reflect a continuous focus on improving operational efficiency and customer service.

For the logistics industry, Gopalpur's greatest strength lies in its potential rather than its present scale. As southern Odisha witnesses rapid investments in green hydrogen, renewable energy, downstream metals and advanced manufacturing, the port is well positioned to become the preferred maritime gateway for these emerging industries. Its integration with the industrial park, access to National Highway-16 and future connectivity improvements will significantly enhance multimodal freight movement.

The Deloitte report Driving Efficiency Across Mining & Metals Value Chain argues that India's future competitiveness will depend on reducing first- and last-mile bottlenecks and integrating ports with rail, road and industrial infrastructure. Gopalpur exemplifies this opportunity. As connectivity projects are completed and industrial investments mature, the port can play a far larger role in supporting Odisha's manufacturing ambitions while complementing Paradip and Dhamra in creating a balanced, state-wide maritime logistics network.

For Odisha, Gopalpur is no longer merely a regional port. It is steadily evolving into a strategic logistics gateway that will help drive industrialisation, exports and sustainable economic growth across the state's southern corridor.



From Coastline To Global Value Chains:

UCCIL's Blueprint For Odisha's Industrial Future

Dr Prabodh Mohanty, President, Utkal Chamber of Commerce and Industry Limited (UCCIL), speaks on positioning Odisha as a preferred hub for South Asian and Indo-Pacific supply chains

UCCIL has often described itself as the “apex chamber” supporting Odisha’s industrial resurgence over nearly six decades. As President, how do you envision the Chamber’s role in aligning Odisha’s industrial and maritime growth with India’s broader export and logistics ambitions over the next decade?

Yes, indeed, the Utkal Chamber of Commerce & Industry Limited (UCCIL) is the apex industrial chamber in Odisha and continues to extend its institutional cooperation to the

Government of Odisha in matters relating to industrial development, policy dialogue, investment facilitation, and coordination with visiting dignitaries and industry stakeholders. As president, I have the responsibility of shaping the industrial landscape of Odisha to align with the Government of Odisha’s Vision 2036 for making Odisha a developed economy in India. Maritime trade will be one of the key areas contributing to the high growth rate of Odisha’s economy, leveraging the long coastline and vibrant upcoming port infrastructure.

With Paradip, Dhamra, Gopalpur and upcoming ports like Astaranga, Subarnarekha and Bahuda driving Odisha’s maritime strength, what policy and infrastructure priorities is UCCIL advocating to ensure port-led industrialisation translates into deeper value addition, coastal employment, and MSME integration rather than remaining purely cargo-driven growth?

Odisha is endowed with highly developed ports like Paradip, Dhamra and Gopalpur and upcoming ports

such as Astaranga, Subarnarekha and Bahuda, which present immense opportunities for developing maritime trade and port-led industrialisation. UCCIL is advocating to develop the inland waterways No. 5 connecting the mineral-rich districts of Odisha to Paradip and Dhamra through the Mahanadi River.

UCCIL is also passionately engaged with the State Government to develop container services from Paradip, Dhamra and Gopalpur ports to connect the MSMEs to the markets in Southeast Asia and promote exports. This will lead to the generation of coastal employment and greater participation of the MSME sector in maritime trade.

Odisha is increasingly being positioned as an eastern gateway to India and the wider Bay of Bengal / BIMSTEC region. From UCCIL's perspective, what strategic steps are needed—on connectivity, regulations and investment promotion—to position Odisha's ports and industrial clusters as preferred hubs for South Asian and Indo-Pacific supply chains?

Odisha is connected to South-East Asia and the BIMSTEC region favourably, which makes Odisha a gateway to enhance maritime trade and commerce with India, with a comparatively lower logistics cost. Moreover, although major ports in Odisha like Paradip, Gopalpur and Dhamra are well connected with Express highways interconnecting National Highways leading to all the major metro cities of India. We feel the Government of Odisha should promote on one of logistics parks, Warehouses in their port cities to facilitate the shortage of goods coming from Southeast Asian BIMSTEC regions, which will in turn lead to a robust supply chain infrastructure. The same is concurrently advocated by UCCIL.

MSMEs are extremely vulnerable to logistics shocks, interest rate swings and commodity volatility. As someone known for championing the MSME cause in Odisha, what specific interventions is UCCIL pushing for—on finance, logistics, digitalisation and market access—to help MSMEs plug into both national and global value chains more effectively?

MSMEs, by their very nature, are susceptible to logistics, shocks, interest rate swings and commodity volatility.

UCCIL being the largest chamber having sizeable members from MSME sector are in constant engagement with Govt. of Odisha to develop a favorable Eco system where they have a common logistics infrastructure support and to enable them to scale up and modernize themselves for this to happen UCCIL is regularly interacting with Banks and financial institutions to extend cheap and easy credit to enable a favorable fund flow/working capital situation to enhance productivity and product quality of global standard. As a result of modernisation and digitalisation, the MSMEs will be able to have greater market access, eventually helping MSMEs to both the national and Global value chains. Recently, you led a UCCIL delegation to engage with the UK mission to strengthen trade ties with Odisha.

What concrete opportunities do you see for Odisha-UK collaboration in sectors like maritime services, green energy, mining technology, logistics and education, and how can such partnerships reposition Odisha on the global investment map?

UCCIL had the opportunity of hosting the UK Deputy High Commissioner to India along with a delegation and discussed in detail the recently concluded FTA by India with the UK. As a result, there is a tremendous opportunity for enhanced trade and commerce by investors. Both countries. Odisha, in fact, will be in a position to develop a robust supply chain infrastructure because of its port-led economy. The marine product exporters will be able to access the UK market from Odisha. Moreover, since Odisha is primarily a mining and metal-led economy, a large amount of mining equipment can come to Odisha manufactured in the UK.

UCCIL imposed upon the UK delegation to invite the UK machine manufacturers to come to Odisha and set up their production unit close to the mining belts, which will be a win-win situation for the business community for both countries. There is also tremendous potential in collaborating on green energy, such as solar



DR PRABODH MOHANTY
PRESIDENT, UTKAL CHAMBER OF
COMMERCE AND INDUSTRY LIMITED (UCCIL)

“

Odisha is connected to South-East Asia and the BIMSTEC region favourably, which makes Odisha a gateway to enhance maritime trade and commerce with India, with a comparatively lower logistics cost.

”

power and green hydrogen. Further, a large number of students from Odisha go to the UK for higher studies in the reputed universities of the UK. UCCIL requested the Deputy High Commissioner to use his good offices to bring in these quality Universities to Odisha, which will enable a large number of students in our state. This will eventually position Odisha as a global investment destination, and the investors from the UK will definitely benefit from the favourable industrial ecosystem and the dynamic industrial policies offered by the Govt of Odisha.



Industrial Growth

Odisha's Transition from a Mineral Economy to an Integrated Industrial Powerhouse

Odisha's industrial landscape is undergoing a profound transformation. Traditionally known for its vast reserves of iron ore, bauxite, chromite and coal, the state is now building an integrated manufacturing ecosystem that brings together minerals, ports, petrochemicals, green hydrogen, downstream industries and world-class logistics infrastructure. This shift is not only increasing value addition within the state but also positioning Odisha as one of India's fastest-growing industrial destinations.

The Odisha Economic Survey 2025–26 reflects this momentum. The industrial sector now contributes 41.3% of the state's Gross State Value Added (GSVA), equivalent to approximately Rs 3.6 lakh crore, making it the largest contributor to Odisha's economy. The sector recorded 6.4% real growth in 2025–26, slightly above the national average, while manufacturing—the principal driver of industrial

growth—is expected to grow by 8.3%, significantly above the national manufacturing growth rate of 7%. Manufacturing now accounts for 45.6% of Odisha's industrial output, highlighting the state's growing emphasis on value addition rather than on exporting raw minerals.

According to the Economic Survey, Odisha attracted cumulative committed industrial investments of ₹15.6 lakh crore between 2022–23 and 2025–26, with the potential to generate over 9.3 lakh jobs. In 2024–25 alone, the High-Level Clearance Authority (HLCA) and the State-Level Single Window Clearance Authority (SLSWCA) approved 187 industrial projects worth ₹4.34 lakh crore, capable of creating around 2.8 lakh jobs.

A defining feature of Odisha's new industrial strategy is the development of an integrated port–petrochemical–green hydrogen ecosystem. The state is encouraging clusters that integrate

manufacturing with ports, logistics infrastructure and clean energy. This integrated approach will strengthen supply chains, reduce logistics costs and enhance export competitiveness. Green hydrogen is emerging as a key pillar of this strategy, supporting decarbonisation across sectors such as steel, aluminium, chemicals and fertilisers.

The state's ambition received a major boost with the announcement of a USD 11.5 billion (approximately ₹1.08 lakh crore) investment by Adani Enterprises and Abu Dhabi-based International Resources Holding (IRH) to establish an integrated aluminium complex in Odisha. The project will comprise a 4 million-tonne-per-annum alumina refinery, a 2 million-tonne-per-annum aluminium smelter, a 4,000 MW captive power plant, and a 1 million-tonne-per-annum downstream aluminium park. The project alone will generate more than 53,000 direct and indirect jobs, creating significant

opportunities for logistics, engineering, and ancillary industries.

Infrastructure development is keeping pace with industrial expansion. The Economic Survey highlights ongoing investments in multimodal logistics parks, electronic manufacturing clusters, mega food parks, and seafood processing parks, as well as improvements to ports, highways, and rail connectivity.

While metals and mining remain the backbone of the economy, Odisha is actively promoting sectors such as petrochemicals, renewable energy, electronics, food processing, technical textiles, biotechnology, and advanced manufacturing.

Odisha is advancing towards becoming a fully integrated manufacturing and export hub. With sustained investment and robust institutional support, the state is well-positioned to emerge as one of eastern India's foremost engines of industrial and economic growth.

Odisha:

The Logistics Engine Behind India's Industrial Investment Boom



As India moves toward a US\$30–40 trillion economy by 2047, competitiveness is shifting from resource abundance to logistics efficiency. Deloitte's report, *Driving Efficiency Across Mining & Metals Value Chain*, argues that India's next industrial phase hinges on moving minerals from mines to plants and ports quickly and cheaply. Few states are better placed to lead this shift than Odisha, which produces 26 per cent of India's coal, over 75 per cent of its bauxite, more than half its iron ore, and 19 per cent of its crude steel.

Yet geology alone doesn't guarantee advantage. Deloitte notes that India's freight costs look competitive on paper, but inefficiencies erode this edge, particularly in first- and last-mile connectivity. In Odisha's Keonjhar-Barbil-Joda iron ore cluster, many mines lack direct rail sidings, forcing ore onto trucks before it reaches railheads, while the Bonai-Koira belt faces similar

feeder-rail gaps and the Kiriburu-Meghahatuburu-Noamundi region struggles with congested rail facilities during peak dispatch. Coal evacuation shows comparable strain: despite Odisha's dominance in output, Talcher Coalfield mines still rely heavily on trucks, and the Ib Valley Coalfield needs greater mechanisation to cut diesel-truck dependence.

Deloitte points to coal's own First Mile Connectivity reforms — enclosed conveyors and rapid loading systems — as proof that mechanisation works, and recommends extending similar systems to iron ore and bauxite. It also calls for extending Dedicated Freight Corridor connectivity into Odisha to link mines, plants and ports, alongside expanding multimodal transport by operationalising National Waterway-5 to connect Odisha with West Bengal and building dedicated bulk terminals linking mineral belts to Paradip and Dhamra ports. Current

schemes like Jalvahak, the report notes, underserve eastern India's waterways, leaving further gains on the table. Ultimately, as Deloitte concludes, the next competitive advantage lies not inside the mine but in the space between mine and market — and Odisha, with its resource base and strategic location, is positioned to lead that shift.

Odisha's Latest Round of Industrial Investment Approvals That logistics push is already being matched by capital. Aluminium will see its largest-ever single investment: Vedanta Limited's ₹1.28 lakh crore commitment to a 3 MTPA smelter and 4,900 MW captive power plant in Dhenkanal, expected to create 30,000 jobs. Steel and metals drew a wave of approvals, including Jindal India Steel Tech's ₹3,600-crore unit in Dhenkanal, Shyam Steel's ₹2,490-crore plant in Keonjhar, Supreme Metals Export's ₹1,500-crore rolling mill in Keonjhar, Star

Metal Works' ₹2,291-crore complex in Sambalpur, Jay Jagannath Steel's ₹955-crore expansion in Sambalpur, and Scan Steels' ₹503.68-crore expansion in Sundargarh — together worth thousands of jobs.

Chemicals, pharma and specialty materials featured prominently too: SRF Limited will invest ₹10,000 crore in a Ganjam specialty chemicals and refrigerant unit (20,000 jobs), Harman Finchem ₹530 crore in a Gopalpur API facility (900 jobs), and Linde India ₹1,303.5 crore in a Jajpur air separation unit. Textiles remained a major employment driver, led by Nandraj Textiles' ₹169-crore Khurda apparel unit with a striking 10,306-job potential, alongside Sportking India (₹2,055 crore, Khurda), Shahi Exports (₹146 crore, Sambalpur) and Maa Taratarini Textile Park (₹70 crore, Ganjam).

Clean energy and advanced manufacturing also gained ground, with CESC Green Power's ₹684-crore battery storage unit in Dhenkanal, AVP Star's ₹500-crore lab-grown diamond facility in Khurda, and Lithros Batteries' ₹60-crore EV and battery project.

Odisha's maritime and logistics ambitions advanced through Baleswar Shipyard's ₹150-crore ship-building facility in Balasore and Tamil Nadu Ispat's ₹113.4-crore multimodal logistics park in Jharsuguda, while Solar Industries' ₹210.1-crore defence-grade explosives unit in Deogarh underscored the state's growing role in strategic manufacturing.

Together, these approvals reinforce a single theme: Odisha's minerals built its industrial base, but it is logistics and diversified investment that will determine how far that base can grow.

Anchoring Coal Logistics at Paradip

KICTPPL's Mechanised Gateway for Eastern India's Industrial Growth

Sudhir Mulagada, Chief Executive Officer, Kalinga International Coal Terminal Paradip Pvt. Ltd. (KICTPPL), on the terminal's mechanised operations, rail-led evacuation model, and Paradip's growing role in eastern India's industrial logistics

Could you provide an overview of the terminal's operations, cargo profile, and its role in supporting industries across Odisha and neighbouring states?

Paradip Port, India's largest major port by installed capacity, is a key gateway for coal imports on the east coast. Developed under the PPP model, Kalinga International Coal Terminal Paradip Pvt. Ltd. (KICTPPL) commissioned its state-of-the-art, fully mechanised 10 MMTPA coal terminal in 2021 with an investment of over Rs. 900 crore. Equipped to handle large Capesize vessels and supported by advanced cargo-handling, storage and rapid rail-loading infrastructure, the terminal delivers efficient, safe and environmentally responsible coal logistics.

Today, KICTPPL serves leading steel and power companies and plays a vital role in supporting the industrial growth of Odisha and neighbouring states through reliable import handling and seamless rail evacuation.

The eastern region continues to witness significant growth in power, metals, mining, and manufacturing sectors. How has this influenced cargo volumes at KICT, and what trends are you observing in the regional coal logistics market?

The rapid expansion of steel, power, mining and manufacturing industries across eastern India has significantly increased the demand for imported coal and efficient logistics infrastructure, directly contributing to steady growth in cargo volumes handled at KICT. Our terminal has become a preferred destination for Capesize vessels due to its fully mechanised operations, high productivity and efficient turnaround times. We currently serve leading industries including Tata Steel, JSW Steel, Jindal Steel & Power, Jindal

Stainless, SAIL, Adani Enterprises, Rungta Steel & Mines, and several other major customers. As industrial demand continues to grow and port dredging progresses, we anticipate larger parcel sizes, higher cargo throughput and increased efficiency in coal logistics across the region.

What capacity-enhancement measures have been undertaken at the terminal in recent years, and are there any expansion plans aimed at accommodating future cargo growth from the region's industrial clusters?

While the terminal's rated capacity is defined under the Concession Agreement with Paradip Port Authority, we continuously focus on enhancing operational efficiency through innovation and process optimisation. Some of our key initiatives include improved stockyard management, energy-efficiency measures, real-time cargo blending, handling of Double Diamond railway rakes, optimisation of equipment utilisation, and continuous digital monitoring of operations — these have enabled us to consistently improve productivity without compromising safety or environmental standards. Looking ahead, our promoters are actively evaluating new mechanised infrastructure projects at Paradip to support the region's growing industrial requirements and further strengthen logistics capabilities.

Coal movement depends heavily on efficient hinterland connectivity. Could you share how cargo is evacuated from the terminal and the respective roles of rail and road transportation in serving customers across eastern India?

Coal evacuation from KICT is carried out exclusively through the Indian Railways network, ensuring safe, efficient and environmentally sustainable transportation. Our terminal



MR SUDHIR MULAGADA

CHIEF EXECUTIVE OFFICER, KALINGA INTERNATIONAL COAL TERMINAL PARADIP PVT. LTD. (KICTPPL)

is equipped with two state-of-the-art Rapid Loading Systems capable of loading two complete railway rakes of 60 wagons each within an hour. The system is integrated with Indian Railways' FOIS platform, enabling automated weighment, seamless documentation and faster rake processing.

Additionally, KICT has successfully handled Double Diamond rakes and provides real-time tarpaulin covering of loaded wagons, ensuring compliance with railway guidelines while significantly reducing turnaround time.

Several infrastructure projects around Paradip, including rail connectivity improvements and port modernisation initiatives, have been progressing in recent years. Which developments have had the most significant impact on KICT's operational efficiency?

The continuous infrastructure development undertaken by Paradip Port Authority, particularly improvements in rail connectivity,

navigational infrastructure and port modernisation, has positively impacted operational efficiency across the port ecosystem. As these developments continue, they will further enhance vessel turnaround, cargo evacuation and overall supply chain efficiency, enabling terminals like KICT to serve customers with even greater reliability and speed.

While KICT primarily serves bulk cargo requirements, how do regional trade patterns and industrial developments influence your market outreach and customer engagement strategies?

Industrial growth in eastern India continues to create new opportunities for efficient bulk cargo logistics. Our strategy is centred on maintaining world-class operational standards, customer responsiveness and long-term partnerships. By consistently delivering high productivity, reliable services, transparent operations and customised logistics solutions, KICT has successfully retained existing customers while attracting new business from leading steel, power and manufacturing companies.

What are the major logistics challenges currently affecting coal and bulk cargo movement in the Paradip region, particularly in areas such as rail rake availability, evacuation capacity, storage infrastructure, and turnaround times?

The rapid industrialisation of eastern India has significantly increased the demand for logistics infrastructure. While port infrastructure has expanded substantially to cater to growing cargo volumes, the corresponding augmentation of railway capacity has not kept pace. As a result, timely availability of railway rakes continues to be one of the key challenges affecting efficient cargo evacuation from Paradip.

Going forward, sustained investment in rail infrastructure, increased rake availability and enhanced multimodal connectivity will be critical to supporting the region's industrial growth, improving supply chain efficiency and maximising the potential of Paradip's logistics ecosystem.

Recent regulatory and operational changes at the port and state levels have sought to improve efficiency and environmental compliance.

How have these changes impacted KICT's business operations and long-term planning?

Since its inception, the terminal has been designed as a fully mechanised coal-handling facility equipped with advanced dust suppression systems across ship unloaders, conveyors, transfer towers, stackers-cum-reclaimers, stockyards and the Rapid Loading System, to effectively minimise dust emissions and ensure compliance with applicable environmental regulations.

As part of our commitment to responsible cargo handling, we have also implemented a unique real-time tarpaulin-covering system at the Rapid Loading System, ensuring every loaded railway rake is covered before dispatch in accordance with Indian Railways' guidelines — this not only minimises fugitive dust emissions during transportation but also enhances operational efficiency by reducing rake turnaround time. Beyond these measures, the terminal has established several environmental protection initiatives, including a Sewage Treatment Plant, a coal settling pond, plantation along the terminal boundary, and systematic covering of coal stockpiles to minimise windblown dust. These initiatives collectively reinforce our commitment to sustainable and environmentally responsible operations.

What technologies has KICT implemented to improve cargo handling, operational visibility, safety, and customer service?

KICT operates one of India's most advanced fully mechanised coal-handling terminals, where automation and digitalisation form the backbone of daily operations. Our integrated systems include ship unloaders, conveyor networks, stacker-cum-reclaimers, Rapid Loading Systems with FOIS-integrated railway operations, real-time cargo tracking, automated weighment, and advanced dust suppression and fire protection systems. These technologies have significantly improved operational efficiency, cargo visibility, safety

standards, environmental performance and customer satisfaction, while establishing KICT as a benchmark in mechanised coal logistics.

Looking ahead, how do you see the Paradip logistics ecosystem evolving over the next five years, and what opportunities do you foresee for KICT as Odisha continues to strengthen its position as a major industrial and maritime hub?

Paradip, being the state's principal maritime gateway, will play an increasingly strategic role in supporting this growth. Over the next five years, we expect significant improvements in port infrastructure, rail connectivity and logistics efficiency, creating opportunities for higher cargo volumes and larger vessels. KICT remains committed to supporting this growth through operational excellence, continuous innovation and customer-centric services — we look forward to contributing meaningfully to Odisha's industrial development and strengthening Paradip's position as a world-class logistics hub.

What three infrastructure or policy interventions at the Paradip-Port-Odisha level would most significantly improve cargo movement efficiency and support future industrial growth in the region?

From our perspective, three key interventions would have the greatest long-term impact. First, enhanced rail connectivity and increased rake availability: expanding rail infrastructure and ensuring adequate rake allocation will substantially improve cargo evacuation and reduce logistics bottlenecks. Second, further capital dredging and port infrastructure development: increasing navigational draft and modernising berths will enable Paradip to accommodate larger vessels, improve economies of scale and enhance global competitiveness. Third, continued digitalisation and policy reforms: greater integration of digital platforms across ports, railways, customs and regulatory agencies, coupled with industry-friendly policies, will improve operational efficiency, reduce turnaround time and promote sustainable growth.

Balmer Lawrie: Powering India's Multimodal Logistics Transformation

R S Louis, Vice President, Balmer Lawrie & Co. Ltd., on the company's integrated logistics strategy, capacity expansion, and vision for a multimodal, sustainable supply chain

➤ **Balmer Lawrie has a diverse presence across logistics and infrastructure services. Could you give an overview of the company's logistics operations and the key sectors you serve?**

Balmer Lawrie is among the pioneers of Indian logistics, offering an integrated, end-to-end suite of services that connects first-mile and last-mile logistics across three core pillars. Logistics Services covers ocean and air freight forwarding, customs clearance, project cargo movement, 3PL operations and domestic multimodal transportation, including movement of finished goods using Liberalised Special Freight Train operations.

Logistics Infrastructure includes state-of-the-art Container Freight Stations at major ports like Nhava Sheva, Chennai and Kolkata, warehousing and distribution points at Kolkata, Coimbatore and Visakhapatnam, and a Multi Modal Logistics Hub at Visakhapatnam. Cold Chain Logistics, under our LOGICOLD brand, provides temperature-controlled warehousing and distribution. We serve a diverse spectrum of sectors, including chemicals & petrochemicals, pharmaceuticals & healthcare, quick service restaurants, perishables via our cold chain, defence, automotive, heavy engineering and FMCG/retail, and we are also a trusted logistics partner to several PSUs and government departments.

➤ **What have been the major milestones in Balmer Lawrie's logistics business over the past few years?**

Over the past few years, our logistics business has focused heavily on modernisation, diversification and footprint expansion. Key milestones include expanding our cold chain footprint by setting up and scaling temperature-controlled warehouses in hubs such as Hyderabad,

Bhubaneswar, Patalganga in Mumbai, Rai and Vijayawada, with a Kolkata facility likely to be operational before the end of this year; scaling our multimodal logistics hub at Visakhapatnam in partnership with Vizag Port Authority, boosting our EXIM capabilities on the east coast; entering rail logistics through Liberalised Special Freight Train operations, providing full rakes for movement of finished goods from steel plants; launching Eastern India's first hub-and-spoke model 3PL facility; and rolling out advanced Warehouse Management Systems and Transport Management Systems for better supply-chain visibility.

Together, these have transformed us into a technology-driven, asset-light Integrated Logistics Solutions Provider with strong retention among Government, PSU and private-sector clients.

➤ **Capacity building is crucial in today's supply-chain environment. What investments is the company making to strengthen its warehousing, infrastructure and operational capabilities?**

We're investing in three main areas. Infrastructure upgrades: continuously modernising our Container Freight Stations by upgrading material handling equipment such as reach stackers and high-capacity forklifts and optimising yard layouts, while expanding our 3PL and cold chain footprint with state-of-the-art warehouses and first- and last-mile connectivity using our own vehicles. Technology & Automation: investing in IoT-enabled tracking, real-time temperature monitoring for our cold chain fleet, and AI-driven route optimisation tools to lower transit times and fuel costs.

Human Capital: we run continuous training programs for ground staff and operational managers focusing



ROMON SEBASTIAN LOUIS (R.S. LOUIS)
DIRECTOR - SERVICE BUSINESSES
BALMER LAWRIE & CO. LTD.

on safety protocols, hazardous cargo handling and digital literacy to ensure seamless operations.

➤ **Are there any significant expansion projects currently underway, and which regions or segments will be the focus of this growth?**

Balmer Lawrie has several strategic expansion projects in the pipeline aimed at capturing high-growth corridors in India. On warehousing, we are looking to expand our commercial warehousing space and set up Free Trade Warehousing Zones, starting with our first FTWZ in western India before expanding into other regions, alongside progressive growth of our 3PL business in Northern and Western India.

On cold chain, we plan additional temperature-controlled facilities in Tier-2 and Tier-3 cities to cater to the booming quick-commerce, retail and pharmaceutical distribution networks, in addition to our upcoming Kolkata facility.

Pharma, Chemical, Automotive, Heavy Engineering and Defence will remain our primary growth drivers, with future expansion heavily targeting India's inland hinterlands.



➤ **What is your long-term growth strategy, and how do you see Balmer Lawrie positioning itself within India's supply chain ecosystem?**

Our long-term strategy aligns closely with the Government of India's National Logistics Policy and the PM Gati Shakti National Master Plan, and our goal is to actively contribute to reducing India's overall logistics cost from double digits to global benchmarks. We are positioning Balmer Lawrie as a preferred Multimodal Integrator, moving away from siloed services to offer bundled, end-to-end supply chain solutions. By leveraging the Dedicated Freight Corridors and developing multimodal hubs that seamlessly connect rail, road and port, we aim to become an indispensable partner for enterprises seeking resilient, sustainable and cost-effective supply chains.

➤ **Exports remain an important growth driver for many industries. How does Balmer Lawrie support export-oriented customers, and what trends are you observing in international trade?**

The Government of India has been focusing on 'Make in India' and positioning India as an export hub. To support our export-oriented customers, we provide regulatory compliance, predictability and cost efficiency, acting almost as a consultant to them — our single-window clearance, seamless

port-handling via our CFS network, and strong relationships with global shipping lines allow us to secure competitive freight rates and assured equipment availability, even during disruptions. The last five years have brought clear shifts: a China Plus One strategy, with a distinct surge in engineering and chemical exports as global corporations diversify toward India; growing use of Free Trade Agreements, requiring logistics partners to be knowledgeable about complex rules of origin; and rising demand for green logistics, with international buyers increasingly asking for carbon-footprint data from Indian exporters.

➤ **From a logistics perspective, what are the biggest operational challenges the company faces today?**

Despite positive growth, the sector faces distinct operational headwinds. First-and-last-mile infrastructure bottlenecks remain a challenge — while highway networks have vastly improved, urban congestion and poorly integrated entry points to ports and terminals still cause unpredictable delays. Fuel price volatility places constant pressure on operating margins, making long-term fixed pricing for clients difficult. There is also a shortage of skilled manpower, with the rapid adoption of automated warehouses and digital tools highlighting a gap in technically skilled labour and certified commercial drivers. And multimodal fragmentation

persists — the lack of seamless digital data-sharing between railways, ports and customs occasionally creates administrative friction, though initiatives like ULIP are actively resolving this.

➤ **Looking ahead, what opportunities and challenges do you foresee for India's logistics sector, and how is Balmer Lawrie preparing for digitalisation, sustainability and multimodal logistics?**

The future of Indian logistics is incredibly bright, driven by structural reforms, infrastructure push and domestic consumption. On digitalisation, we are actively integrating our systems with the Government's Unified Logistics Interface Platform and using real-time data from aggregators for real-time visibility of cargo in international and domestic transit, while also deploying predictive AI to optimise warehouse space utilisation. On sustainability, we are committed to greening our footprint — exploring electric vehicles for city-based last-mile deliveries, installing solar panels on our warehouse rooftops, and shifting long-haul cargo from road to rail wherever viable to reduce Scope 3 emissions. And by designing our newer hubs as convergence points for rail and road, we can easily pivot between modes based on cost, speed and carbon targets — positioning Balmer Lawrie as an agile, future-ready leader in the Indian market.

Rail Connectivity:

Driving the Next Phase of Port-Led Growth in Eastern India



Rail connectivity has emerged as one of the most critical enablers of efficient freight movement in eastern India, particularly for the ports of Paradip, Dhamra, and Haldia. As cargo volumes continue to grow, the focus has shifted from merely connecting ports to the railway network to creating high-capacity rail corridors that can handle increasing freight traffic more quickly and efficiently.

Paradip and Dhamra ports are among the country's leading gateways for bulk commodities such as coal, iron ore, steel, fertilisers, alumina, and petroleum products. Although the Indian Railways network connects both ports, the growing industrial activity in Odisha and neighbouring states has placed tremendous pressure on the existing infrastructure. Recognising this, Indian Railways has initiated

several projects to augment line capacity, improve signalling, and eliminate operational bottlenecks.

A major focus has been on enhancing connectivity to Paradip Port, which handles some of the highest freight volumes on the east coast. Projects currently underway include the construction of the third and fourth railway lines between Paradip and Badabandha, automatic signalling between Cuttack and Paradip, and a rail flyover between Paradip and Siju. Surveys have also been completed to double the Haridaspur–Paradip rail line and expand the Cuttack–Badabandha section. Together, these projects will increase line capacity, reduce congestion, and facilitate faster movement of freight trains.

The Ministry of Ports, Shipping and Waterways has identified an integrated programme to strengthen

hinterland connectivity across Odisha through coordinated investments in rail, road, and inland waterways. The Government has completed several rail projects, including the Haridaspur–Paradip rail line, the Angul–Sukinda new line, the doubling of the Sambalpur–Talcher section, and the Banspani–Daitari–Tomka–Jakhapura corridor. These links have significantly improved freight movement from mineral-rich districts to coastal ports.

Equally important are projects currently under implementation. These include additional rail lines between Bhadrak and Vizianagaram, the Dhanmandal–Chandikhole chord line, third and fourth lines in the Budhapank–Salegaon and Jarapada–Budhapank sections, and the Talcher–Bimlagarh railway line. Collectively, these investments will improve network resilience,

support heavier freight traffic, and enhance connectivity for industries across Odisha.

For the logistics industry, these developments translate into tangible operational benefits. Increased rail capacity enables longer and more frequent freight trains, reducing turnaround times at ports and improving asset utilisation. It also helps industries move larger volumes of bulk cargo more economically and reduces dependence on road transport.

Improved rail infrastructure is also strengthening multimodal logistics. Enhanced connectivity between industrial clusters, logistics parks, and ports enables seamless cargo transfers, creating more efficient supply chains for sectors such as steel, aluminium, mining, thermal power, and fertilisers. As Odisha continues to attract investments in manufacturing and port-led industrial development, robust rail infrastructure will remain a cornerstone of regional competitiveness.

The expansion of rail connectivity around Paradip, Dhamra, and Haldia represents more than an infrastructure upgrade—it is a strategic investment in the economic future of eastern India. By creating higher-capacity freight corridors and improving last-mile connectivity, these projects are laying the foundation for faster cargo evacuation, lower logistics costs, and a more integrated maritime-industrial ecosystem.

Road Connectivity:

Building the Backbone of Odisha's Logistics Ecosystem



Road connectivity is emerging as a cornerstone of Odisha's logistics transformation, complementing the state's expanding port, rail and industrial infrastructure. Two recent developments, the Union Cabinet's approval of the Rameshwar-Paradip Coastal Highway and the state's decision to expedite land acquisition for three strategic rail corridors, underscore Odisha's integrated approach to building a seamless transport network that promises faster cargo movement, lower logistics costs and improved access to industrial and maritime hubs.

Rameshwar-Paradip Coastal Highway: A Game-Changer for Coastal Odisha

Odisha's coastal belt is set

for a transformation with the Cabinet's approval of the Rameshwar-Paradip Coastal Highway, a 160.18-km corridor running through Khurda, Puri, Kendrapara and Jagatsinghpur districts at a capital cost of ₹8,300.79 crore. Developed by the Ministry of Road Transport and Highways under the Hybrid Annuity Model across two packages, the project comprises a four-lane access-controlled highway from Rameshwar to Konark and a two-lane highway with paved shoulders from Konark to Paradip, designed for speeds of up to 100 km/hour.

For commuters, freight operators and industry alike, the headline benefit is time: the corridor is expected to cut travel time between Rameshwar and Paradip by nearly two and a half hours, bypassing congested stretches of the

existing highway network. Under PM GatiShakti, the highway is designed to connect nine economic nodes and five logistics nodes, strengthening last-mile access to Paradip Port, the proposed Astaranga Port, the upcoming Multi-Modal Logistics Park at Jagatsinghpur, fishing harbours and industrial estates along the route. Sectors such as steel, aluminium, mining, petrochemicals, fertilisers and seafood processing stand to gain from shorter transit times and lower transport costs. Equally significant is the state government's decision to undertake advance land acquisition for three proposed public-private partnership rail corridors — the Talcher Coal Corridor, the Jajpur Road-Dhamra Port Rail Link, and the Tikri-Kutrumali Bauxite Corridor

— even before selecting private developers. This proactive move, backed by ₹450 crore earmarked in the 2026-27 Budget, aims to eliminate land-acquisition delays and keep connectivity projects on schedule, strengthening freight movement for the mining and industrial sectors.

Taken together, these investments round out Odisha's integrated infrastructure push — one that aims to move cargo faster, draw tourists deeper into the coastline, and unlock real estate value in districts that have so far remained on the margins of the state's industrial growth story, reinforcing Odisha's position as one of eastern India's most important logistics and maritime gateways.



Building a Rail-Led Logistics Backbone for Odisha's Industrial Growth

Ashish Khilnani, Vice President, Vedanta Limited, on Vedanta Aluminium's rail-led logistics network, port connectivity and Odisha's growing role as an industrial export hub

Could you give an overview of Vedanta Aluminium's logistics operations in Odisha and the key commodities it moves?

Vedanta Aluminium operates one of India's largest industrial logistics networks, with a strong presence across Odisha, Chhattisgarh and Andhra Pradesh, moving over 55+ million tonnes of cargo annually — among the highest private-sector freight volumes in the country.

Our supply chain moves key commodities including alumina from the Lanjigarh refinery, coal from captive and linked mines, and finished aluminium products such as billets, ingots and wire rods, exported to more than 100 destinations across six continents. Rail forms the backbone of our operations — we are among the largest freight customers of Indian

Railways in the East Coast region — while we are also the largest container cargo exporter from Paradip Port. Digital control towers and vehicle-tracking systems further strengthen visibility and efficiency across our network.

How are raw materials like bauxite, coal, caustic soda and alumina sourced and transported, and what's the current rail-road mix?

Vedanta Aluminium leverages an integrated multimodal network of rail, road and ocean transportation. Commodities are routed through major ports and domestic sources to our operational locations through a combination of rail and road, with rail preferred for bulk cargo due to its efficiency, scalability and sustainability benefits. Today, around 75% of our total material movement is rail-based, supported by dedicated rakes, sidings

and strong logistics partnerships.

What logistics capacity-building initiatives has Vedanta undertaken to support higher production volumes and supply-chain resilience?

We are systematically strengthening our logistics ecosystem to scale cargo movement from over 55 million tonnes annually towards a planned 80 million tonnes. A major focus has been expanding rail-led infrastructure — we have inducted nearly 50 captive rakes across commodities such as coal, alumina and caustic soda, developed rail sidings, and commissioned a TXR facility at Jharsuguda to reduce turnaround time. Partnerships with organisations such as CONCOR have strengthened our containerised logistics capabilities, and a hub-and-spoke model is being developed for domestic goods movement. We also

run Pink LOCO, an all-women-operated locomotive at Jharsuguda, reflecting our focus on inclusivity, while our Integrated Transport Management System and Rail Control Tower enable real-time tracking and proactive disruption management.

Which infrastructure developments have had the greatest impact on your logistics efficiency, and what would you prioritise next?

The Sarla TXR facility and the doubled Sambalpur-Titlagarh rail section have cut rake turnaround times and eased congestion, while containerised exports through Paradip and Gangavaram have boosted export efficiency. Looking ahead, we would prioritise four things: fast-tracking the Sardega-Bhalumuda rail line for 100% rail-based coal evacuation from our captive mines; enhancing rail capacity on key industrial corridors in the Sambalpur region; strengthening India's container ecosystem through domestic manufacturing and stronger Indian shipping lines, aligned with initiatives such as the Bharat Container Shipping Line; and continued investment in multimodal and port infrastructure to support Odisha's emergence as a major export hub.

How does Vedanta leverage Odisha's ports for exports, and what trends are you seeing in international demand?

Paradip Port is central to our export strategy — we are its largest container cargo exporter, handling over 60,000 containers annually and recently winning the Highest Containerised Export Award for FY26, our second consecutive year. Despite global headwinds like tariff uncertainty and Middle East shipping disruptions, aluminium demand remains strong from renewable energy, EV and infrastructure sectors. Only about 20% of our finished goods currently move through Paradip, leaving significant headroom for growth as additional shipping lines, vessel services and container-handling infrastructure come online.

What are Vedanta's key logistics priorities for the next three to five years?

Our priorities will centre on building

a larger, greener and more digitally integrated supply chain to support growth towards 80 million tonnes annually. Key focus areas include expanding rail capacity and connectivity between mines, plants and ports; adopting EVs, energy-efficient equipment and embedding ESG principles to lower emissions; and deploying advanced control towers, real-time visibility platforms and predictive analytics to improve planning, asset utilisation and supply chain resilience.

What are the most significant logistics challenges facing the aluminium industry today?

Globally, tariff shifts, Middle East shipping disruptions and rising Chinese exports are adding volatility to freight markets. Domestically, rail capacity constraints on high-density and single-line routes, along with limited crew and locomotive availability and priority given to passenger traffic, affect rake turnaround and reliability. On the maritime side, India's dependence on global container ecosystems highlights the need for stronger domestic container manufacturing and shipping capabilities.

What steps is Vedanta taking to improve sustainability across its logistics operations?

We are increasing our rail coefficient through dedicated rakes and infrastructure expansion, and driving efficiency through backloading and circular utilisation of rake assets to reduce empty movements and emissions. Within plant operations, we operate India's largest fleet of lithium-ion electric forklifts — 75 units across our facilities — supported by digital tools for better planning and asset utilisation. Together, these steps are helping us build a more sustainable, future-ready logistics ecosystem aligned with our long-term ESG and decarbonisation goals.

How do you see Odisha's logistics ecosystem evolving, and what role should industry, railways, ports and government play?

Odisha is emerging as one of India's most important industrial and logistics corridors, and its ecosystem must evolve into a



ASHISH KHILNANI
VICE PRESIDENT / SENIOR LOGISTICS EXECUTIVE /
RAIL, ROAD & PORT STRATEGY | DRIVING COST
OPTIMIZATION & OPERATIONAL EXCELLENCE

more integrated, multimodal and technology-driven network. Priorities include strengthening rail capacity, port connectivity and multimodal infrastructure, with seamless integration between mines, industrial clusters and ports. Ports will play an increasingly strategic role through investments in container handling, evacuation infrastructure and coastal shipping. Industry should keep investing in sustainable infrastructure, logistics providers should drive multimodal innovation, and railways, ports and government agencies must expand capacity and streamline approvals — all aligned with the PM Gati Shakti vision.

If you could recommend three infrastructure changes to boost Odisha's supply-chain competitiveness, what would they be?

First, expanding rail capacity, including fast-tracking the Sardega-Bhalumuda corridor, along with capacity augmentation on key routes and port linkages. Second, strengthening port infrastructure and container ecosystems, particularly at Paradip, through further investment in handling facilities and stronger domestic shipping capabilities. Third, developing integrated multimodal logistics hubs connecting rail, road and ports to streamline cargo movement and improve first- and last-mile connectivity. Together, these can position Odisha as one of India's most efficient logistics and export gateways.



Bahuda Port: Strengthening Odisha's Maritime Future

Odisha has steadily emerged as one of India's most significant maritime states, thanks to its 574.7-km coastline, an official figure revised upward in 2025 from an earlier survey of 476 km. The state has abundant mineral resources and a rapidly expanding industrial base. While major ports such as Paradip, Dhamra, and Gopalpur continue to drive the state's trade and logistics, the proposed Bahuda Port in Ganjam district is expected to further enhance Odisha's maritime infrastructure and support the region's long-term economic growth.

Located near the Andhra Pradesh border, Bahuda Port is strategically positioned to serve the southern districts of Odisha and the northern hinterland of Andhra Pradesh. The proposed deep-water port, with an estimated investment of ₹21,500 crore, is expected to improve cargo movement for industries engaged in mining, metals, cement, fertilisers, thermal power, and other bulk commodities. Its location also offers an opportunity to decongest existing ports while providing

industries with an additional gateway for imports and exports.

A Formal Push: The September 2025 Tripartite MoU

The project took a decisive step forward in September 2025, when the Paradip Port Authority (PPA), the Odisha Maritime Board (OMB) and Sagarmala Finance Corporation Limited (SFCL) signed a tripartite Memorandum of Understanding to jointly develop Bahuda as a satellite port of Paradip. The agreement was executed by PPA chairman RL. Haranadh, OMB chairperson Usha Padhee, and IPA & SFCL managing director Vikas Narwal. It envisages a port with a cargo-handling capacity of 150 MTPA, capable of serving large dry bulk carriers and container vessels, developed on more than 6,700 acres of coastal salt land designated for maritime use in Ganjam district.

A dedicated Special Purpose Vehicle (SPV) is expected to manage the project's execution, financing and operations, with the initiative aligned to the Maritime India Vision

2030 and the PM Gati Shakti National Master Plan. Officials involved in the agreement have described Bahuda as poised to become Odisha's second major, Union government-backed port after Paradip, positioned to reduce congestion at existing ports, lower logistics costs and widen trade access for mineral-rich regions of Odisha, north coastal Andhra Pradesh and parts of Chhattisgarh. The project is expected to generate close to 25,000 direct and indirect jobs once operational.

One of the key advantages of Bahuda Port is its potential to improve regional logistics efficiency. At present, industries in southern Odisha often rely on ports farther north or in neighbouring states. A modern port closer to these industrial clusters could reduce transport distances, lower logistics costs, and improve supply-chain reliability.

The proposed port is expected to handle a range of bulk and break-bulk cargoes, including coal, iron ore, limestone, alumina, steel products, fertilisers, and project

cargo. As industrial investment continues to expand in southern Odisha, cargo demand is likely to rise steadily, creating opportunities for integrated logistics services, warehousing, and value-added cargo handling.

Equally important will be the port's connectivity with the hinterland. Efficient rail and road links will be essential to ensure the seamless movement of cargo between industrial centres and the port. Integration with the regional highway network and the railway system will enable multimodal transport, reducing transit times. Such connectivity will also support the growth of logistics parks, container freight stations, and ancillary services in the surrounding region.

Bahuda Port has the potential to become a catalyst for regional economic development. Large port projects typically generate direct employment during construction and operations, as well as indirect opportunities in transport, equipment maintenance, warehousing, customs services, hospitality, and small businesses. Improved infrastructure often attracts new industrial investment.

Like all major infrastructure projects, Bahuda Port will need to balance economic growth with environmental stewardship. Sustainable construction practices, coastal ecosystem protection, efficient cargo-handling systems, and modern pollution-control measures will be critical to long-term viability. Digital technologies, automation, and smart port management systems could also play an important role in improving operational efficiency and safety.

Subarnarekha Port:

Unlocking the Maritime Potential of Northern Odisha



Envisaged as a deep-draft, all-weather port under the public-private partnership (PPP) model, Subarnarekha Port will cater to the growing cargo requirements of industries in northern Odisha, Jharkhand, West Bengal, and parts of eastern India. The project is being developed by Subarnarekha Port Private Limited (SPPL), with Tata Steel holding a major stake. The Odisha government originally signed the concession agreement in 2008, and the project has since progressed through environmental clearances, land transfer, and pre-construction activities.

Ownership: Tata Steel's Stake, Layer by Layer

Tata Steel's involvement in the project is structured across two layers. The company holds 51% stake in Creative Port Private Limited (CPPL), the original promoter holding the port's concession, and separately holds a 7.06% direct equity stake in SPPL

itself, having acquired an additional 4.19% stake for a consideration of ₹10 crore in April 2018, up from an earlier holding of 2.87%. Together, these holdings give the Tata Steel group majority effective control of the project, which it originally envisaged as a captive logistics gateway to serve the raw-material needs of its 10-MTPA steel plant at Jamshedpur.

Clearances and a Prolonged Delay

The project has faced prolonged delays since its 2008 concession award, and by some industry accounts is India's most delayed port project relative to concession date. Environmental clearance was first granted in 2012, reports suggest that clearance had lapsed by March 2024 pending renewal, while defence clearance for the site was secured in August 2017. In the interim, Tata Steel has continued to route its cargo through Paradip, Dhamra, and Kolkata-Haldia port.

NMDC Dredging & Marine: A Potential Rescue

The project's prospects brightened in November 2025, when NMDC Dredging & Marine, a subsidiary of the Abu Dhabi government-backed NMDC Group, expressed strong interest, at India Maritime Week in Mumbai, in stepping in to revive the stalled project. The company proposed a fully funded Engineering, Procurement and Construction (EPC) contract for the port's dredging and marine works, valued at approximately ₹4,000 crore, and is separately exploring an equity stake in SPPL. Industry estimates now put the total project cost at ₹12,000-13,000 crore, considerably higher than the ₹5,000 crore figure cited in the Odisha government's 2023-24 annual report, underlining how much the scope and cost of the project have evolved since the original concession.

The port will be developed in phases. The first phase envisages a cargo-handling capacity of 25 million tonnes per annum (MTPA), with the ultimate objective of expanding capacity to 55 MTPA. Plans include the development of 12 berths capable of handling a diverse range of bulk and break-bulk cargo.

Once operational, the port's proximity will reduce transport distances for several industries, thereby lowering logistics costs and improving supply chain efficiency. It will also provide an alternative gateway for exporters and importers.

Connectivity will be central to the port's success.

The Odisha government has already handed over land for the port site and the construction access road, and has initiated the acquisition and development of a dedicated railway corridor linking Amarda Road railway station to the port. As of February 2026, this rail link continues to feature among the state's priority port-connectivity corridors, though, together with improved road infrastructure, its completion timeline remains contingent on the broader project reaching financial closure.

Ports typically catalyse industrial investment by spurring the development of logistics parks, warehousing facilities, transport services, and ancillary industries. The development of Subarnarekha Port could therefore create substantial employment opportunities while enhancing the economic prospects of Balasore district and adjoining areas.

Subarnarekha Port will be an important component of the state's long-term port-led development strategy. With NMDC Dredging & Marine now examining a funding and equity role, and rail connectivity plans continuing to advance, the project appears closer than it has been in years to moving beyond its concession-stage limbo.

Astaranga Port

A Strategic Maritime Gateway in the Making

Situated on the coast of Astaranga in Puri district, the proposed Astaranga Port is among Odisha's most ambitious greenfield port projects. Although still under development, it remains a key element of the state's long-term strategy to expand maritime infrastructure and strengthen logistics capacity along its 574.7-km coastline, an official figure revised in 2025 from an earlier survey of 476 km.

The Government of Odisha signed a concession agreement with Navayuga Engineering Company Limited in November 2010 to develop Astaranga Port on a Build, Own, Operate, Share, and Transfer (BOOST) basis under the Public-Private Partnership (PPP) model. The project has progressed through statutory approvals, including environmental and Coastal Regulation Zone (CRZ) clearances, while land acquisition and alienation activities continue.

The proposed port is planned as a deep-draft, all-weather facility with an estimated investment of approximately ₹7,417 crore. It is envisaged to be developed in phases, with cargo-handling capacity expanding from 17.7 million tonnes per annum (MTPA) in the initial stage to 71.3 MTPA at full development. The master plan provides for 4 to 14 berths, enabling the port to handle a broad range of bulk and break-bulk cargo.

Land Acquisition: The Project's Central Bottleneck

Progress on the ground has been slow, and land acquisition remains the



project's central constraint. The plan requires roughly 1,600 acres of government land and around 4,000 acres of private land, spread across both forest and non-forest categories in the villages affected by the project. Since 2014, when local villagers reportedly pledged at the Gomukhi Keshab temple to resist the acquisition, at least 400 families across seven villages in the area have continued to oppose the project, and the dispute remains pending before the Odisha High Court. More than any technical or financing constraint, this unresolved land question is the single biggest reason the port has yet to move from concession to construction.

One of Astaranga Port's key strengths is its strategic location. Situated between Paradip and Gopalpur, it is expected to serve industries across central and southern Odisha and to support cargo from neighbouring states. The port is expected to handle commodities such as coal, iron ore, limestone, steel products, fertilisers,

alumina, and other industrial cargo generated by the region's expanding mining, metals, cement, and power sectors. Astaranga could serve as an additional maritime gateway, easing pressure on existing ports.

According to the project plan, road connectivity will link the port to Phulnakhar via National Highway-16, while rail connectivity is proposed via Raghunathpur Railway Station on the East Coast Railway network. Dedicated road and rail corridors are expected to enable seamless cargo movement between industrial centres and the port, improving logistics efficiency and reducing transport costs for exporters and importers.

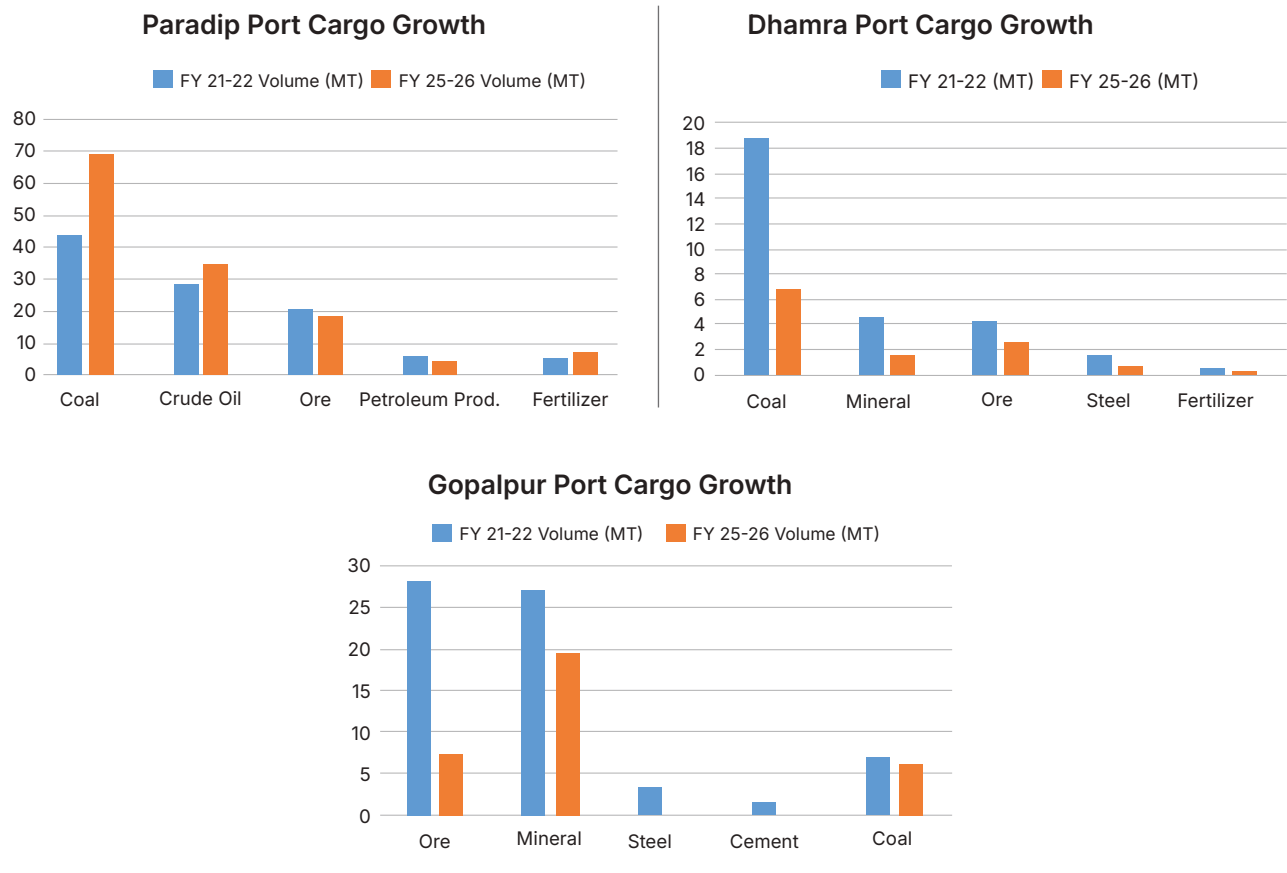
Large-scale port infrastructure typically attracts investment in warehousing, logistics parks, container freight stations, trucking services, ship support activities, and industrial clusters. The development is also expected to generate direct employment during construction and port

operations across the region.

Environmental sustainability will remain a key consideration throughout the development process. The project requires comprehensive environmental and CRZ clearances, underscoring the need to protect Odisha's sensitive coastal ecosystem while enabling infrastructure growth. Modern cargo-handling technologies, efficient dust-suppression systems, digital port management, and sustainable operating practices will play a key role in the port's long-term development.

Although Astaranga Port has yet to become operational, it remains an important part of Odisha's maritime development strategy. Together with other planned ports, such as Subarnarekha and Bahuda, it reflects the state's commitment to expanding cargo-handling capacity, improving multimodal connectivity, and strengthening Odisha's position as a leading logistics and maritime hub on India's east coast.

Comparative Cargo Growth, Odisha Ports



Three-Year Comparative Cargo Performance by Port

THREE YEAR TREND (Qty in 000' Metric Tonnes)							
CARGO		DHAMRA			GOPALPUR		
CATEGORY CARGO GROUP		FY 23-24	FY 24-25	FY 25-26	FY 23-24	FY 24-25	FY 25-26
BULK	COAL	9364787	3713398	6668266	1057819	99877	583746
	FERTILIZER	96457	33000	186848	NA	NA	NA
	MINERAL	1007092	400417	1422574	1211263	262701	1938518.12
	ORE	3766372	780309	2483645	2749000	451460	686769
	STEEL	225529	184095	531658	NA	NA	NA
GENERAL & PROJECT CARGO	GENERAL CARGO	162800	165000	388065	NA	NA	440
	PROJECT	NA	NA	440	NA	413.4	500
LIQUIDS	CHEMICALS	NA	NA	733236	NA	NA	NA
	PETROLEUM PRODUCTS	88321	65000	104962	NA	NA	NA
Total		14711358	5341219	12519694	5018082	814451	3209973.12

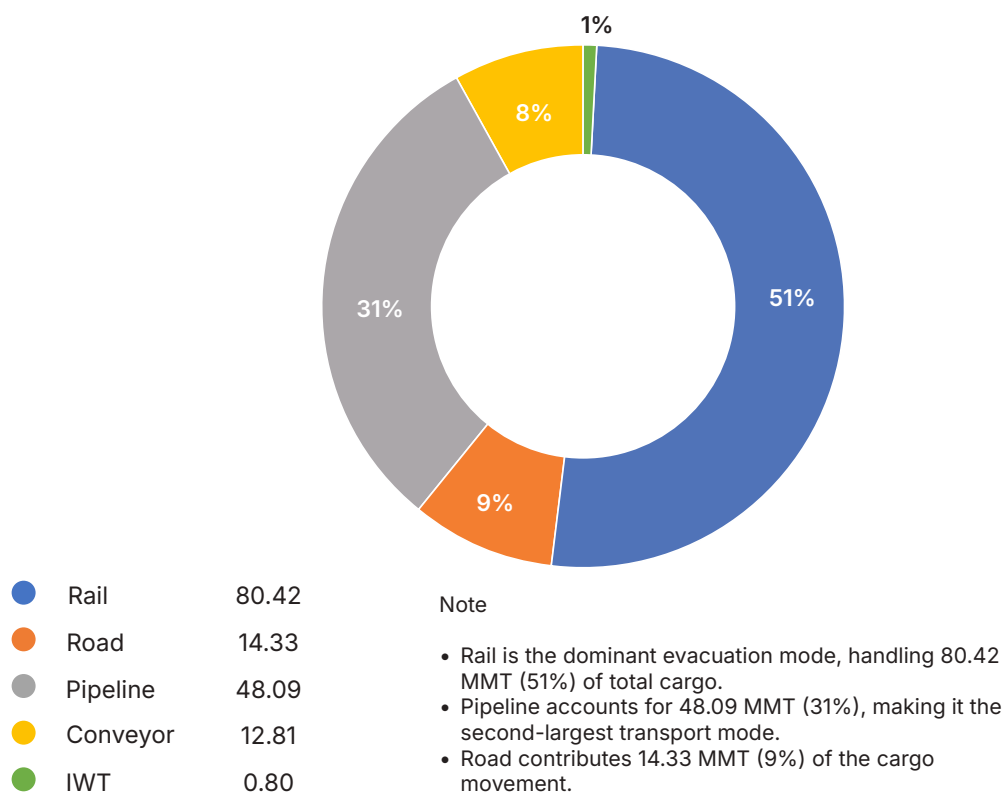
Note

- Dhamra Port recorded a strong recovery in FY 2025-26, with total cargo increasing to 12.52 MMT, led by higher coal, ore, and mineral volumes.
- Gopalpur Port witnessed significant growth in FY 2025-26, driven primarily by a sharp rise in mineral cargo (1.94 MMT) and improved ore handling (0.69 MMT).
- Bulk cargo remains the primary cargo segment at both ports, while general cargo and liquid cargo continue to contribute a comparatively smaller share of total throughput.

Paradip Port: Commodity-Wise Cargo Performance

Cargo Type	FY 23-24	FY 24-25	FY 25-26	FY 25-26 [Upto May'25]	FY 26-27 [Upto May'26]
Dry Bulk Cargo	102.99	108.37	104.45	18.02	19.11
Thermal Coal	49.12	51.18	52.67	8.87	9.23
Coking Coal	14.18	14.63	16.04	2.60	2.94
Iron Ore & Pellets	25.81	23.07	18.26	3.91	3.85
FRM (Dry)q	5.49	6.05	5.85	0.93	0.77
Others (Dry Bulk)	8.39	13.44	11.63	1.17	2.32
Liquid Cargo	39.85	38.67	48.09	7.49	7.17
Crude & POL	37.96	36.94	46.42	7.22	7.04
FRM (Liquid)	1.77	1.62	1.55	0.24	0.11
Edible Oil	0.12	0.11	0.12	0.03	0.02
Break Bulk (Steel, Project Mat.)	2.34	2.83	3.32	0.52	0.35
Containers	0.2	0.55	0.59	0.07	0.08
Total	145.38	150.41	156.45	26.10	26.71

Overall Modal Split, Paradip Port



Source- PPA