COUNTRY FOCUS: NEPAL Rail Freight on the Fast Track DARK STORES FREIGHT FORWARDING HAMBANTOTA PORT Poised to Take on the World **Why Dark Stores Entering Unchartered** are Here to Stay? Territories south asia's premier maritime business magazine ₹100 maritime WWW.MARITIMEGATEWAY.COM DATE OF PUBLICATION: 28/04/2022 RNI NO: TELENG/2009/30633 **HAROPA PORT CROSS THE 3 MILLION TEU MARK CAPT. RAM IYER** INDIA REPRESENTATIVE, **HAROPA PORT AND PRESIDENT, MANSA**

> Last mile is often called the "costliest mile," as almost 53 percent of logistics costs are incurred in actualizing last-mile deliveries. The pressing need to shrink delivery turnaround times while controlling the logistics cost have pushed brands to develop ways to tackle this necessary evil.

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THE ERA OF SUPPLY CHAIN DISRUPTIONS



To secure supply chains businesses are diversifying by adding more suppliers, procuring from production bases closer to their key markets It has become more difficult to predict how long the supply chain disruptions would last. And the disruptions are of all sorts – disruption due to COVID in China, disruption due to Russian invasion of Ukraine and the disruption due to economic crisis in Sri Lanka.

As the pandemic enters its third year, the world's supply chains are still being hammered by labour shortages and logistics challenges — with disruptions still varying country to country. Strict COVID control measures implemented at Shanghai, the world's busiest container port, have left many companies concerned over delays in shipping of goods "made in China" due to rising Covid cases and the country's efforts to control infections. To control the turbulence in the supply chain businesses are adapting various measures such as diversifying by adding more suppliers, procuring from production bases that are closer to their key markets.

But COVID is not the only reason behind changing supply chains. For the first time ever, Egypt will be purchasing wheat from India, adding the South Asian nation to the list of 16 other origins of import. The land of Pharaohs, which also happens to be the world's top wheat importer, is just trying to shore up purchases disrupted by Russia's invasion of Ukraine. The General Authority for Supply Commodities (GASC), the grain purchasing authority in Egypt used to buy wheat from the Black Sea region because of its proximity, quality and competitive prices.

The World Trade Organisation has forecast the Ukraine conflict will slowdown growth in global commerce this year to around 3%, down from an earlier forecast of 4.7%.

These disruptions have surfaced a major fact: We have always, for decades, focused on making our supply chains fast and cost-effective, but the need to make them robust remained unattended. Need of the hour is to invest in making our supply chains resilient to disruptions, be it a natural calamity, war or an economic crisis. A ripple effect of these disruptions is the rise in inflation – the fastest rise ever witnessed in decades altogether. Price pressures are now gathering momentum across economies in Asia, bringing the continent more in line with the rest of the world in facing historic inflation that's creating a painfully high cost of living.

However, the question remains – will these quick changes in the supply chains shape up permanently or will the buyers return back to their good old markets, once the disruptions are ironed out?

Namponaul

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Container as Warehouse

Bulk Loading

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FIRST MILE LAST MILE CONNECTIVITY (FMLM)

FMLM App for Transporters-CONCOR e-Logistics Transporter App: CONCOR has developed FMLM App to provide End to End logistics support to its customers. The very purpose of FMLM is to strengthen and provide FMLM connectivity at reasonable and cost-effective rates to the Customers through competitive bidding among empanelled vendors at terminal level.

Bulk Loading Service (BLS) for Loose Cargo like Food Grains & Oil etc.

BLS benefits: No to Intermediary Transportation/ storage/Multiple Cargo Handling, spillage & wastage are avoided, No to fumigation at customer godowns, No Silo/Warehouse required as cargo is stored in containers thus saving in Cost.

Total Logistics Solutions (TLS)

CONCOR's aim is to provide TLS for EXIM/Domestic & is focusing on creating Multi Modal Logistics Parks across India which shall provide a single window clearance to all customer for logistics needs. TLS Advantages: Efficient rail transportation of containers, Massive warehousing capacity, Country-wide network, Large Reel of containers, Relationship with top-end customers/logistics intermediaries

CONCOR's Logistic Support During COVID Pandemic

Worked 24x7x365, moved several Oxygen Trains Across India Provided 0, Concentrators/ Cylinders, Ambulance Service, Free Testing and Vaccination Camp, Distributed thousand Food Packets & Ration Kits #2fightCORONA

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Think Container, Think CONCOR

he ship breaking industry in India is experiencing an impressible growth, a welcome relief after the Covid pandemic had slowed down the industry and almost brought it to a grinding halt. However, things are looking brighter now. According to Credit ratings agency Crisil, the domestic ship breaking industry's revenue is expected to increase by 10% year-on-year this fiscal.

The growth can be attributed to higher rates for steel scrap and increased availability of condemned vessels. The industry's growth was also driven by India enacting the Recycling of Ships Act, 2019, and joining the Hong Kong International Convention (HKC). The act, which provides for safe and environmentally sound recycling of ships, has strengthened India's position in ship breaking, globally.

Increased Availability of Ships

Due to the fall in global trade due to the Covid pandemic, more vessels were available for dismantling, at lower costs. In addition to tankers, containers and bulk carriers, the ship breaking companies also received other types of ships and boats.

Alaap, the Assistant General Manager at RL Kalthia Ship Breaking Pvt. Ltd. said "We have received a higher number of cruise lines, small ships, tug boats (1000 tonnes, 2000 tonnes), oil drilling ships."

"We have also received car carriers; due to the travel restriction, the selling of cars slowed down, and many car carriers had arrived for ship breaking."

Cruise ship arrivals have increased at ship breaking yards over the last 12 months, especially Alang in Gujarat. This can be attributed to the slow down in Cruise tourism in the last 1.5 years. The owners are struggling with crew maintenance, vessel maintenance, payment of salaries, anchorage charges and even bankruptcy. However, the cruise industry is slowly picking up now.

Before things started getting better for the ship breaking industry, it struggled greatly due to the Covid



SHIP BREAKING – BACK INTO ACTION

The growth can be attributed to higher rates for steel scrap and increased availability of condemned vessels

BY SUKUMAR DARA

pandemic. The industry was hit by many problems including the migrant crisis and the oxygen crisis.

The Migrant Crisis

At the start of the pandemic, when India imposed a complete lockdown, the ship breaking operations were closed. During the lockdown, the migrant labourers left for their homes. As a result, when the first lockdown was lifted, the ship breaking industry faced a severe labour crunch. The ship breaking companies tried to hire the local labourers. However, the labourers were not proficient and also came at a higher cost. This impacted the overall profits. Moreover, even after hiring the local workforce, the companies had only 25% of the total workforce because of the migration.

The Oxygen Supply Problem

The ship breaking industry faced another hurdle in April 2021, when the Indian Government ordered the oxygen supply to be diverted to local hospitals to help treat Covid patients. This was in response to the largest wave of infection in the country. As the ship breaking work requires the use of liquefied oxygen fuel torches to cut through the metal, the lack of oxygen supplies greatly affected the operations. The oxygen costs also soared during this period, increasing the operating costs for the ship breaking companies.

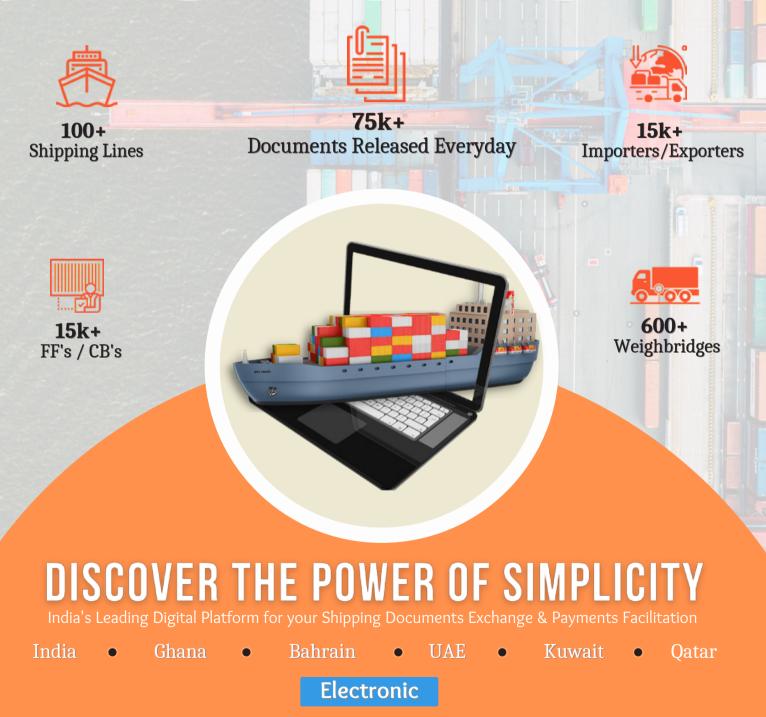
A Brighter Future

The ship breaking industry has successfully braved the problems brought in by the pandemic and things are looking brighter now with oxygen supplies back to normal and the return of the workforce.

Also, according to Crisil, the government is seeking to double India's ship recycling capacity by fiscal 2024 by targeting more scrap vessels from the European Union leveraging Hong Kong International Convention (HKC). This will strengthen the domestic ship breaking industry and lead to increased profitability.



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Last mile is often called the "costliest mile," as almost 53 percent of logistics costs are incurred in actualizing last-mile deliveries. The pressing need to shrink delivery turnaround times while controlling the logistics cost have pushed brands to develop ways to tackle this necessary evil.

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BRINGING DOWN THE COSTLIEST MILE

kilometres travelled in urban areas contributes to 47 per cent of total transportation costs. Last-mile delivery centres can significantly reduce that.

India's last-mile delivery market i set to touch a market size of \$6-7 billion by 2024, moving in a similar direction to markets like China and the US where 10 percent. India's last-mile delivery and other categories. Of these, FMCG constitutes the highest followed by e-commerce, according to a report by Bengaluru-based market research firm RedSeer. "In the e-commerce sector, logistics is divided between captive and third-party logistics (3PL). The overall e-commerce shipments have grown from 817 million shipments in 2018 to 1,364 million shipments last year, and is expected to grow over 5,000 million by 2025," said Kanishka Mohan, Director, RedSeer.

Further, the rise in demand for hyper-local deliveries and quick commerce means that deliveries must get faster. High logistics costs and the pressing need to shrink the delivery turnaround times have pushed brands to develop ways to tackle this necessary evil. All the flagship projects – Sagarmala, Bharatmala and the recent PM Gati Shakti Plan are aimed at reducing the logistics cost.

Role of technology

The increasing order volumes, shrinking order fulfilment windows, evolving customer expectations, and intensifying market competition necessitate brands to drop their old-age methodologies and embrace innovative technologies. Getting away with manual processes can help brands streamline operations, boost customer experience, and realize greater value. Here's how AI and ML-powered logistics management platforms can help brands optimize their logistics process to achieve multifaceted objectives.

In this age, when delivery windows are continually shrinking and customer expectations are at an all-time high, having a robust technological platform can differentiate between a mediocre delivery experience and an unmatched one. AI and ML-powered logistics management platforms can be great enablers in this regard.

nearly 8 percent of the overall GDP of the country, across the value creation cycle. The road logistics contributes the highest in the overall logistics market. Road logistics is a market size of \$240 billion and is divided between Intracity and intercity logistics. Intra-city logistics, which includes the last-mile delivery, is the movement of goods within 200 km (one side), with a round trip of fewer than 24 hours, and a load of fewer than 5 tonnes. It currently represents about 18 percent of the overall logistics.

he overall road logistics constitutes

"Last mile" is often called the "costliest mile," as almost 53 percent of logistics costs are incurred in actualizing last-mile deliveries, reveal logistics experts. According to JLL research, 10-15 per cent of total vehicle

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"We have the most reliable and expansive (in reach) Pan-India network serving 735 out of the country's 739 districts and covering more than 19,800 PIN Codes. A large part of our first and last mile network is made up of entrepreneurs called Gati Associates."

- Mr Huafreed Nasarwanji

Chief Commercial Officer, GATI

Logistics services, First and last mile connectivity provided by Gati

Gati is an integrated express logistics service provider specialized in providing door-to-door services by surface and air. We have the most reliable and expansive (in reach) Pan-India network serving 735 out of the country's 739 districts and covering more than 19,800 PIN Codes. A large part of our first and last mile network is made up of entrepreneurs called Gati Associates. We have over 2,000 of them spread across the length and breadth of the country whose business we have helped set up and scale with ours. Gati has always been in the forefront of enabling entrepreneurship. A key differentiator for us is our strong tech infrastructure and contact centre: Pick up and deliver app, bot support, live WhatsApp support and technology platform that's been evolving and updated continuously over more than a decade.

The hinterland served by Gati

We have the deepest reach in India today, with our network reaching out reliably to the farthest and smallest corners of the country with an onus on trust and customer-centricity. Our services enable the people and businesses of our country to deliver anything anywhere in India with reliability, visibility (tracking) and unmatched cost efficiency. Gati enables seamless reach, access and customer experience for clients across tier 2 and 3 markets which are becoming increasingly important consumer markets for all categories, whether automotive, pharmaceuticals, FMCG. consumer durables and electronics. We enable reach, access and customer experience for them. Gati is also the only express logistics service provider in India not suspending operations when difficulties and disruptions arise.

Commodities moved by Gati

The network of Gati encompasses a mix of different commodities with our services used by a large client base comprising large customers, MSMEs and retail customers. We have also intensified our efforts to expand our outreach among SMEs in Tier-II and III cities. By banking on our diverse portfolio of service offerings and leveraging on advanced digital initiatives like chatbot and automation, we are aiming to increase our revenues from SMEs from 30 percent to 50 percent in the next 2 years. Gati is also strongly focused on strengthening our presence in the B2B retail segment. Having said that, customers from the automotive. engineering, consumer goods, pharmaceutical, apparel and electronics have largely contributed to our growth story. As an integrated express service provider, Gati's focus is not on just transporting goods from destination A to B for customers but also crafting solutions to help them optimize market access and limit cost.

Growth and expansion plans at Gati

Key industries mentioned above and large customers from the same make up a significant part of our business. We continue to serve them with the very best in terms of reach, reliability, automation, customer service, etc. However, a very important segment for us has always been MSMEs and how we can help them access markets, grow their business and enable their success, and most importantly, do this in a cost effective manner. - We also serve another large and important part of the Indian economy: the traders and small businessmen who otherwise don't have access to modern, tech-enabled logistics systems. This is also where we step in with our integrated express logistics systems and ability to deliver anything anywhere in India reliably and cost effectively.



- Mr. Adika Ratna Sekhar Chairman & Managing Director, Balmer Lawrie

Logistics services, First and last mile connectivity provided by Balmer Lawrie Logistics?

Balmer Lawrie Logistics has been in the Custom Brokerage and Freight Forwarding segment for decades and is one of the oldest Custom Brokers in India. In our endeavour to deliver seamless services to our customers and delighting them, Balmer Lawrie has been providing single window solutions to a lot of its esteemed customers. Our service delivery includes the first mile connectivity for Exports out of India and the last mile connectivity by delivering such cargo to the buyers' premise abroad, and the first mile connectivity for Imports in the country of origin and the last mile connectivity by delivering such cargo to the buyers' premise in India using multi modes of transportation. Balmer Lawrie Logistics provides first and last mile connectivity not just in India but also provides the same from / to in foreign countries for shipments using the Air as well as Sea Mode. We provide seamless end-to-end solutions for movement of EXIM cargo.

The hinterland served by Balmer Lawrie Logistics?

India has a vast hinterland connected to various gateway seaports in the East



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sales@surajinformatics.com www.surajinformatics.com and West Coast of the country. Balmer Lawrie Logistics provides connectivity throughout the hinterlands of India as we have offices operating in all the major gateway seaports in the country. In the southern region, we connect the hinterlands of Bangalore and Hyderabad using either east or west coast seaports, and we provide the best and cost-effective solutions to the customers of these hinterlands. In the north Indian hinterlands like Ludhiana NCR, UP etc., we give the best solutions by using the ports on the west coast of India. The hinterlands of the east and northeast of India like Bihar. Jharkhand. Guwahati etc., are being catered to by Balmer Lawrie Logistics using the ports of Kolkata and Visakhapatnam. In fact, Balmer Lawrie Logistics has been providing connectivity in the east using the rail mode of transportation using two rail siding in Kolkata and one in Visakhapatnam enabling their customers to move cargo in bulk. As Balmer Lawrie Logistics has its presence pan India, it becomes easy for us to cater to customers of hinterlands by giving them choices of gateway ports, which can be used to provide them the most optimum solution.

To which seaports does Balmer Lawrie Logistics provide connectivity?

Balmer Lawrie Logistics provides connectivity to all the major gateway seaports of India. We have been operating from our own offices at all the seaports. What gives Balmer Lawrie Logistics the advantage to serve the customers is its own Container Freight Stations (CFS) in Nhava Sheva, Chennai, Kolkata and a Multi Modal Logistics Hub in joint venture with Visakhapatnam Port Trust in Visakhapatnam. Our CFS in Kolkata has a rail siding by virtue of which we have been handling cargo for customers for export purpose. The cargo comes to our siding in a full rake, stuffed in containers in our CFS. and then moved to port using the Rail Merry-Go-Round facility at the CFS as well as by road. Similarly, we have been serving customers in Visakhapatnam and its hinterland where customers can bring their cargo into our MMLH, use the warehouses there and export or distribute cargo domestically.

Which are the commodities being moved by Balmer Lawrie Logistics and what were the volumes moved last year?

Balmer Lawrie Logistics operates at pan India level with a very strong network of worldwide Associates, which enables us to handle diverse cargoes and have a footprint in majority of the cargo segments. Balmer Lawrie is very strong in Metal and alloys segment and has been helping Exporters & Importers move their cargo using Containers as well as the by Chartering vessels for Bulk movement. We are also strong in the Agri & Perishable cargo and are moving cargo in Reefer containers from the Hinterlands of UP, Bihar providing the exporters a single window solution which includes, transportations, custom broking and the international freight-Ocean or Air depending on the quantity of the cargo being moved. Engineering and Machinery goods is another major segment for Balmer Lawrie Logistics. Renewable energy segment is another segment where we are very strong as we have been helping power producers to import their plant and machinery and raw materials subsequently into India. The other segments where Balmer Lawrie Logistics has the expertise and are strong is the Chemicals, Electronic and Electrical goods, Commodities like Rice and Maize etc.

Growth and expansion plans at Balmer Lawrie Logistics?

Logistics, being a very integral part of any supply chain, has been growing steadily. Balmer Lawrie Logistics has been predominantly into Freight Forwarding, Custom Broking and Container Freight Stations and has been a dominant player in these segments. Balmer Lawrie Logistics has been very ambitious and has been increasing its footprints in custom broking and freight forwarding growing leaps and bounds, and will continue focusing in growing in these sectors. Balmer Lawrie Logistics has been in the Air Chartering segment for decades providing solutions to move the freight by Chartering Aircrafts of all dimensions as well as providing the first and last mile connectivity in this product. With this business strength, we ventured into Sea freight forwarding of Break Bulk cargo by chartering vessels

in full or part, and now we plan to become a first and last mile connectivity provider for this segment and grow in this product as a Single Window Solution provider. Project Logistics including movement of Over Dimensional Cargo (ODC) and Over Weight Cargo (OWC) is one of our prime business areas for expansion. We have the right mix of experience to grow in this sector. Balmer Lawrie has ventured into Cold Chain Logistics and has state-of-the-art temperature-controlled warehouses (Cold / Ambient) in strategic locations like Medchal in Hyderabad, Rai in NCR and Patalganga in Mumbai with the fourth one ready for operation in Bhubaneswar. We intend to capitalise the growth in this sector and our Cold Chain Units are well complemented with fleet of vehicles of all sizes to provide first and last mile connectivity. Our message for prospective customers is that we are one of the organised players in the Logistics industry that provides Integrated Logistics solutions supported by best-in-class assets.



"With 30 offices and more than 49 warehouses covering more than 3.9 million sq feet of warehousing space, we are everywhere our customers want us to be."

- Mr. Vivek Chopra

Acting CEO, Cluster India and Indian Sub-Continent, DB Schenker

Logistics services, First and lastmile connectivity provided by DB Schenker

DB Schenker in India has been amongst the leading supply chain service providers offering tailor-made solutions to our clients. With our core



competencies as global 3PL logistics service providers, we offer end-to-end long-term solutions to manage and control the entire value chain between suppliers, manufacturers, traders, and customers.

Our solutions include a wide range of logistics services from a single source ranging from distribution services dedicated or shared warehousing to cross-docking and other valueadded services. Our contract logistics solutions add value to the supply chain management process regardless of the industry. We cover all supply chain stages - from supplier to customer delivery, as well as reverse logistics to aftermarket support in different sectors. With Shared Logistics Centers (SLCs), we offer our customers the flexibility to cater to the changing business needs in terms of seasonality and volume, growth potential through scalable modern facilities, and synergies resulting from sharing resources and assets for efficient service levels. The services we aim to provide to our clients help us become one of India's most reliable logistics service providers.

With land transport, we provide diversified product portfolios like point-to-point trucking with express & normal TAT, dedicated fleet deployment, cross-dock operations, Pan-India capability to service LTL, cross border capabilities including Custom clearance, multimodal operations for specific needs, white glove deliveries / escorted deliveries and digital solutions for third-party operations. These services are tracked via connect2track, offering innovative visibility solutions through DB Schenker's IoT platform.

The hinterland served by DB Schenker

DB Schenker in India is one of the leading providers of integrated logistics services in the region. It offers a complete range of international air & ocean freight services, integrated logistics services, and global supply chain solutions from a single source supported by its solid worldwide network comprising 2000 locations. With 30 offices and more than 49 warehouses covering more than 3.9 million sq feet of warehousing space, we are everywhere our customers want us to be. The company's vision of investing in infrastructure, state-of-the-art technology and human resource is now bearing fruit for Schenker India Pvt. Ltd. In line with this vision, Schenker India Pvt. Ltd. in the last 25 years has extended its capabilities manifold and introduced innovative freight solutions for its growing customer base.

We have the expertise - and the passion - to make the supply chain perform better. With the support of our worldwide network of branches, DB Schenker in India connects allimportant global economic regions and offers logistics solutions tailor-made to customers' requirements.

To which seaports does DB Schenker provide connectivity?

At DB Schenker, our ocean freight forwarding products facilitate more than 700,000 customers' global relationships across 1400 countries. Wherever the customer needs shipments, our innovative solutions form the bridge to the customer's sales and procurement markets. Consistent, reliable sailings ensure that ocean freight shipments always reach customers promptly.

Our services ship more than 5,500 containers a day to ports worldwide, making us the preferred logistics partner for FCL and LCL shipments. We also offer the most cost-effective solutions – combining air and ocean freight products to save you time and money.

The DB SCHENKER *ocean* product range offers various services to meet customers' ocean supply chain needs. Each product is developed to meet high standards for comprehensive door-todoor transport services and everything in between.

Commodities being moved by DB Schenker

We provide supply chain and logistics services across many major markets (electronics, industrial, healthcare, retail & fashion, Consumer & Automotive/ Aerospace), supporting our global and Indian customers with their logistics needs. We move a wide range of products including raw materials for manufacturing industries, electronics components, electronics finished goods, subassemblies of industrial equipment, food grade commodities such as flours, cashews, and many more. We also work with RMG suppliers and support their supply chain needs. Along with this, we also look after pharma/health care exports to various destinations across the globe.



"Tiger Logistics is the strongest logistics player in the India-South America trade lane and the biggest mover of Auto cargo in this trade lane. Along with this, it has a strong hold in the India-Africa, India-Far East, India-South East Asia trade lanes."

- Harpreet Singh Malhotra

Chairman & Managing Director, Tiger Logistics

Logistics services, First and last mile connectivity provided by Tiger Logistics

Tiger Logistics has its own fleet of vehicles that help serve customer needs for first mile connectivity for export cargo and last mile for import cargo. In addition to its own, it has strong partnerships with domestic transportation organizations. With over 300 vehicles (owner and rented), it is able to meet all transport needs of customers.

Furthermore, Tiger Logistics also has agents in all destination countries that provide transportation services for both first and last mile, making it an end-toend logistics service provider.

The hinterland served by Tiger Logistics

With branch offices across all major

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cities in India including Delhi, Jaipur, Mumbai, Chennai, Nashik, Veraval, Pune, Ahmedabad, and partners in others,Tiger Logistics services all hinterlands of India. With associations with ICDs, it is strongest in ICDs in North India.

Seaports connected by Tiger Logistics

Tiger Logistics majorly operates from Nhava Sheva, Mundra, Pipavav, Chennai, Cochin, Vishakhpatnam and Kolkata seaports to all other seaports globally. It is the strongest logistics player in the India-South America trade lane and the biggest mover of Auto cargo in this trade lane. Along with this, it has a strong hold in the India-Africa, India-Far East, India-South East Asia trade lanes.

Commodities moved by Tiger Logistics

Tiger Logistics is one of India's largest movers of automotive cargo servicing all the biggest brands of the auto-industry including Bajaj Auto, Hero, Honda, TVS, MRF, KTM, Ceat and more. Alongside this, Tiger Logistics moves yarns and textiles, pharmaceuticals, tiles and commodity goods such as rice and vegetables as well. During the lockdown and the container crisis, it had consolidated its resources and worked to service its existing customers. However, it has now emerged from the turmoil and is refocussing on expanding its customer base. It is investing heavily on developing a game-changing digital platform that will transform India's logistics industry.



"We have aligned ourselves with the Government's 'Make in India' initiative and are keen to bring the world to these Tier II and Tier III cities and towns too. We can proudly

say that we reach every nook and corner of our country, or what we fondly call – Blue Dart Country.''

- Ketan Kulkarni Chief Commercial Officer, Blue Dart

Blue Dart's initiatives in road and air transport to enhance last-mile connectivity

Blue Dart is the nation's most trusted and preferred trade facilitator, providing individualised solutions for customers across industries. Our comprehensive solutions, provided by our subjectmatter experts, address every aspect of the customer's express logistics requirement and ensure that every touchpoint across the supply chain is operated optimally to deliver excellence, always. From the first, through the middle and up to the last mile, our goal is to ensure business and supply chain continuity no matter what and we deliver on these parameters, par excellence.

We do this by leveraging our capabilities – our market differentiators – which include our fleet of Boeing 757 freighters that operate across the nation as well as cross-border on a case-by-case basis. Our extensive ground network that provides access to 35000+ locations domestically as well as our talented and skilled workforce whose customer-centricity remains incomparable when compared to industry standards. As a part of the Deutsche Post DHL Group, we also extend our reach to over 220 countries and territories worldwide.

Our expertise lies in Express Logistics which refers to quick, efficient and reliable pick-ups and deliveries of shipments to consumers within a stipulated time limit. To this effect, our USP is our Time Definite solutions that work across air as well as ground express products. Moreover, we consistently incorporate future-ready technology-based solutions to our portfolio which aids us in remaining one step ahead of the curve, delivering exceptional service quality. Leveraging Application Programming Interface (API) based solutions, new-age technologies

such as AI/ML, the digital twin as well as predictive logistics, we are able to deliver our customers' shipments on time, every time. Our innovation in this space continues to flourish as we take leaps and strides in devising technologyled solutions to enhance customer experience. Adding to this, we launched the Blue Dart Med-Express Consortium to aid last-mile efficiency and create a robust healthcare infrastructure in the remotest areas of the nation by leveraging drone flights. Blue Dart's market-leading technology continues to provide every customer with exceptional value

The hinterland served by Blue Dart

One of our key USPs is our unparalleled reach which comprises of an access to 35000+ locations across the nation and 220 countries and territories worldwide.

Early on we conducted, DAWN – Delivery Anywhere Now, through which our serviceable locations doubled catering specifically to tier II & III cities. Apart from this, we also launched another program, RISE - Revenue Increase from Small Towns & SMEs to support businesses from Bharat to cater to a larger market. Both initiatives aimed to expand our reach into small towns to bring the world closer to these cities and towns.

We take pride in being able to showcase the offerings of India's small businesses and MSMEs in Tier II, Tier III cities & towns to the world. We have aligned ourselves with the Government's 'Make in India' initiative and are keen to bring the world to these Tier II and Tier III cities and towns too. We can proudly say that we reach every nook and corner of our country, or what we fondly call – Blue Dart Country.

With an intention to extend our reach beyond the 35000+ locations we already service, we launched the **Blue Dart Med-Express Consortium** along with our partners Skye Air and Altitude Angel in partnership with the Ministry of Civil Aviation, Government of Telangana, World Economic Forum, Niti Aayog and Healthnet Global. A natural extension of the air express part of our service portfolio, the **Blue Dart Med-Express Consortium** leverages the power of drone technology for the delivery of vaccines and medical supplies in a safe



and reliable manner to remotest parts of the country. The consortium will support us in extending our reach into the Indian Heartland to ensure seamless last-mile delivery. Leveraging an efficient system of this kind, we intend on supporting and improving India's healthcare logistics infrastructure to be faster and more efficient, especially in rural & deep rural interiors of the nation.

Which are the commodities being moved by Blue Dart?

Having been the Trade Facilitator to the nation for over 38 years, Blue Dart is recognised as a Customer Trusted Brand for a reason. We traverse across a myriad of customer segments, providing individualised logistics solutions for all, including but not limited to B2B, B2C, C2C etc. No matter what the logistics requirement, we will have a solution for it; it is why we say, 'If It's Important, #BlueDartIT'. The list of commodities that we ship is extensive and ties in with the fact that logistics retains its position as the backbone of industries across verticals. Automotive parts, consumer durables and electronics, fashion and lifestyle items, eCommerce, temperature sensitive shipments such as live samples and vaccines, other medical and pharmaceutical equipment such as oxygen concentrators, ventilators and oxymeters, as well as securitized goods such as passports and credit/debit cards form only the tip of the iceberg in terms of commodities we ship.

Growth & expansion plans

Blue Dart has been making strategic investments to remain agile, adaptive and competitive in a highly VUCA environment. We take an active interest in ensuring service excellence is delivered to our customers. Aligning ourselves with the DPDHL Group's 'Strategy 2025 – Delivering Excellence in a Digital World', our initiatives are tailor-made to ensure lean operations. We will continue to invest aggressively in expanding our reach to emerging markets, improving transit and delivery time, state of the art infrastructure, and future technologies such as drones to enhance last-mile delivery. Being a future-ready company that reiterates the importance of technology, we look forward to scaling our technological

prowess in the drone space beyond medical supplies to other industries including eCommerce, BFSI for securitized services, the Automotive sector for vehicle off-road deliveries etc., going forward.



"In future we will increase our presence in overseas locations like Malaysia, Taiwan, Dubai and Hong Kong. Cargomen also likes to venture into 3PL warehousing services and Free Trade Warehousing services."

- Kamal Jain MD, Cargomen Logistics

Logistics services, First and last mile connectivity provided by Cargomen Logistics

Cargomen SPPL Service provides last mile logistics, collecting cargo from point of origin and delivering it to the point of contention. In case of international cargo movement, cargo is collected from overseas factory and delivered to locations PAN India and vice versa. Cargomen act as a freight forwarder, transporter, Customs and trade compliance advisor.

The hinterland served by Cargomen Logistics

Cargomen operates out of nine locations in India including Hyderabad, Bangalore, Vishakhapatnam, Chennai, Delhi, Mumbai, Pune, Kolkata and Kochi. These nine offices serve locations in Telangana, Andhra Pradesh, Tamil Nadu, Delhi NCR and in around Mumbai, Maharashtra, West Bengal and Kerala.

Seaports where Cargomen Logistics provides connectivity Cargomen serves from Chennai, Mumbai, Kolkata and Visakhapatnam seaports and various other air cargo complexes.

Commodities moved by Cargomen Logistics and volumes moved last year

We have handled IT equipment, chemicals, pharma products and engineering products. In terms of shipments - 25000 shipments were handled last year and in terms of containers Cargomen handled 5000 containers last year.

Growth and expansion plans at Cargomen Logistics

Cargomen operates from 8 locations in India and one overseas location in Singapore. In future we will increase our presence in overseas locations like Malaysia, Taiwan, Dubai and Hong Kong. Cargomen also likes to venture into 3PL warehousing services and Free Trade Warehousing services.



"We, at Truckbhejo, have a strong network of 3,000+ vehicles on our platform. Combining the strength of the supply network with technology and data analytics, we are serving the remotest locations. Western states of Maharashtra, Goa, and Gujarat are our favourite routes, and we are extensively connected in these regions."

- Nilesh Ghule Co-founder & CEO, TruckBhejo





First and last-mile connectivity provided by TruckBhejo

TruckBhejo is a technology-led logistics company. Our expertise is in. (a) providing highly efficient services in the trucking sector, and (b) offering customised and affordable solutions across all three delivery miles. Every customer has different requirements at different points in time. Size of the company, scale of orders, seasonbased needs, all differs from industry to industry and client to client. At Truckbhejo we ensure to serve all types of customers by providing solutions to their varied requirements. We cater to clients from 500kg payload to 25 tonnes, offer flexible contracts to provide them ease on their finances, and also offer flexible shifts with an all-night dispatch model helping them bring more efficiency and speed in deliveries.

Today, Truckbhejo has a network of 3,000+ vehicles. Around 80% of the truck drivers associated with us are the owner drivers and have joined the fleet through just words of mouth. TruckBhejo's ability to provide certainty of contracts and presence across the supply chain to customers allowed truck owner-drivers to scale up their business. From being a single truck owner, they are now small fleet owners. Such a strong supply-side ensured 100% deliveries even in peak seasons and during the tough time of the pandemic.

Further, we cater to various sectors like FMCG, e-commerce, e-grocery, manufacturing, telecom, and retail majors. Customer experience delivered by our team has given us a chance to work with all the marquee names and big brands in the respective industries.

The hinterland served by TruckBhejo

About 700 million people live in the country's more than 600,000 villages. The scope of expansion is actually out there. With deepening interest penetration, demand from villages is not only seeing an uptick but is also experiencing a change in product categories. In my opinion, the real growth lies here in the hinterlands and that requires a deep and extensive supply network. The supply network not just of the last mile, but also connecting the middle mile. With GST coming in, the warehouses are now located closer to the manufacturing hubs, and in more Tier II and Tier III cities. And hence the middle mile deliveries have become of utmost important.

We, at Truckbhejo, have a strong network of 3,000+ vehicles on our platform. Combining the strength of the supply network with technology and data analytics, we are serving the remotest locations. Western states of Maharashtra, Goa, and Gujarat are our favourite routes, and we are extensively connected in these regions.

To which seaports does TruckBhejo provide connectivity?

TruckBhejo's network connects the whole nation across all three delivery miles. We currently cater to 40+ cities in India. We have our strong presence in Western India with the highest connectivity to Nhava Sheva, Kandla, Mundra, Jamnagar. We also have regular loads to and from Murmagoa, Kochi, and Chennai port.

Which are the commodities being moved by TruckBhejo?

We cater to various segments, with large e-commerce companies being our most regular clients. From the commodities point of view, we largely mobilise agri produce and LPG. Consumer goods like apparel, electronics, grocery, and furniture are our primary goods. However, our scope of services is expanding constantly across the geographies, customers, products, and service offerings.



"EDEL, our EV based last mile delivery service has grown quickly to become the only Pan India player in that space. We are channelling our logistics

services to drive more growth of multimodal logistics."

- Mahindra Logistics

Logistics services, first and last mile connectivity

Being one of India's largest Third-Party Logistics (3PL) solution providers, we at Mahindra Logistics provide wide connectivity to and from all Indian ports, resulting in seamless first and last mile logistics. To achieve both; supply chain effectiveness enhancement and cost efficiency, we use all modes of transportation, while reducing carbon footprint significantly. We provide connectivity to all Indian sea ports.

We provide an integrated logistics solution to our clients – from supply chain consulting, freight forwarding, domestic transportation, dedicated network, last mile delivery, value added services, warehouse inventory and order management to in-plant stores and line feed.

Hinterland served by Mahindra Logistics

Mahindra Logistics serve more than 21000 pin codes in the country in more than 500 operating locations.

Commodities moved by Mahindra Logistics

Mahindra Logistics serves clients from the following industries and provides logistics to all commodities these clients are in: Automobile, Engineering, Consumer and FMCG, Pharma and E-commerce.

Growth and expansion plans

At Mahindra Logistics, our journey is to become a provider of integrated solutions to our customers and therefore there are 4 big areas we are investing to grow in the company. Firstly, expanding our integrated end to end solutions. Therefore, we are working much more closely with customers and end markets in terms of designing solutions and a big part of that focus is around e-commerce and FMCG, pharma, durables and so on. Thus, we are moving away from our traditional strengths in manufacturing towards markets such as the ones which are already listed.

Secondly, there are 3-4 services we are especially focused on, one is on



freight forwarding, which is a business capable of growing aggressively and we continue to find ways to expand that growth that is basically; cross border logistics. The second one is express logistics and this is really part truck load, express movement of vehicles or goods through an express network. That business grew by 40% in FY21 and that's a service line which we are investing to grow. The third thing which we are focusing on is our electric vehicle based services. EDEL. our EV based last mile delivery service has grown quickly to become the only Pan India player in that space. The fourth one is driving more growth of multimodal logistics. Historically, we are a surfaced road based transportation company and now we are expanding in rail based services, which has witnessed significant growth.

Thirdly, we are expanding our warehousing footprint. We are one of the largest warehousing operators in the country. We have nearly 17.7 million sq ft of managed warehousing space, and we are further expanding our large warehousing BTS format. These are built-to-suit multiuser facilities and we are building and expanding that network in a fairly significant way across the country in multiple locations. The largest area where we are investing a lot is the constant improvement in technology and digitization. It includes investments in driving integrated technologies, IT technology suites across transportation warehousing and so on. Additionally, it also includes greater investment in automation systems, robotics among others to drive more shop floor automation and integration across our network.

We aim at ₹1,000-crore business by FY 2026 for Lords Freight and a ₹10,000 Crore business for Mahindra Logistics Limited.



"The company picks up shipments from nearly 2.93 lakh points across the country. The presence across metros, Tier I/II/III/IV cities/towns and villages has enabled Ecom Express to serve the logistics needs of large, medium and small e-commerce firms."

- Manju Dhawan

Co-founder, Ecom Express

Logistics services, first and last mile connectivity provided by Ecom Express

Ecom Express is a technology enabled end-to-end logistics solutions provider to the e-commerce industry. The company focuses on e-commerce order fulfilment through a detailed and innovative approach to delivery. It provides shipment pick-up, delivery and return solutions and offers a wide range of supply chain services and logistic solutions. The company picks up shipments from nearly 2.93 lakh points (warehouses/shops/residences, etc.) across the country. The wide presence across metros, Tier I/II/III/IV cities/ towns and villages has enabled Ecom Express to serve the growing logistics needs of large, medium and small e-commerce firms. Using customized solutions to meet the dynamic needs of fast-growing e-commerce players, the company uses its proprietary line-haul network, last-mile distribution using automated & intelligent information systems for real-time tracking solutions.

Ecom Express' technology platform forms the backbone of its business. The company's proprietary technology applications, high level of automation across its entire value chain and data science capabilities have helped it achieve the scale, operational efficiency and network flexibility. It has invested significantly in technology at every stage of the value chain which has enabled it to onboard customers quickly, increase its network throughput, enhance endconsumer experience, drive operational efficiencies, take data-driven decisions and minimize human intervention. The entire logistics operation - be it managing inventory, processing shipments, payments or recording cash payments by consignees, amongst other processes - is driven by technology. All these enable Ecom Express to deliver reliable and consistent performance and deliver high-quality customer service.

The hinterland served by Ecom Express

Ecom Express has its presence in all 28 states of the country and has close to 3000 offices/establishments - there is one for every 40km. The company operates through its extensive network covering over 27000+ PIN codes reaching areas, such as Gosaba Islands in Sunderbans. Ecom Express has pioneered full-state coverage model (that is, 100 per cent PIN code coverage in a state) and has deep coverage Pan India, including across smaller towns and rural establishments. This fullstate coverage is currently offered in 25 states, including Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal. Through this deep reach strategy, the company has the capability to deliver e-commerce orders and connect with over 95% of India's population. Customers in Tier 2+ cities can shop online due to the serviceability of e-commerce logistics providers, like Ecom Express, covering the majority of India's PIN codes.

Commodities moved by EcomExpress and volumes moved last year

Through our e-commerce logistics solutions, we serve e-tailers, online sellers and e-marketplaces that sell electronics, apparels, footwears and a wide range of other product categories. E-commerce is and will always be about on-time and reliable deliveries. At Ecom Express, with the wide network and enhanced efficiency, our endeavour is to provide the best, timely and reliable service to our customers and endconsumers.

Growth and expansion plans at Ecom Express





Besides our core service of shipment delivery, we are investing heavily in building our capabilities in fulfillment center services and digital services (offering e-KYC, document/cheque/cash collection, Contact Point Verification, etc.), which will help us to outpace the industry growth. We are also improving our customer experience by investing in new-age digital capabilities. We are also strengthening our operations by investing in automation, robotics, analytics to manage scale and enhance the productivity across the layers of various functions, such as finance, human resources, operations, and network planning.



Exporters and importers from any part of the country can leverage Freightwalla's unified dashboard to plan and book shipments. Shippers can review and choose the best plans by comparing rates, transit times, schedules, and other criteria as per their business needs.

- Sanjay Bhatia

Co-founder & CEO Freightwalla

Logistics services, First and lastmile connectivity provided by Freightwalla

As an intelligent freight forwarder, Freightwalla provides services like sea freight forwarding, on-ground transportation for cargo, custom clearances, and other value-added services like pre-shipment inspection of cargo and container, cargo insurance, trade finance, among others.

Some digital and value-added services that we provide include simple yet efficient planning and costing tool for businesses to plan and budget their shipments. We believe in the power of data-driven insights, and that is something we have been employing to provide in-depth details of sea routes, schedules, and comprehensive rates for shipping. Our AI-powered predictive analytics software drives supply-chain visibility simple with real-time cargo tracking. It is predominantly for MSMEs to help them ship their cargo error-free. In Addition, we have entirely adopted the online documentation process and digital workflow. Our network of thirdparty customs agents handle cargo clearance and ensure risk-free shipping. Once all the documents are updated online, customers receive regular updates on the clearance status on an online dashboard.

Freight forwarding as a business is dominated by conventional modus operandi; digitalization will help the industry save countless person-hours that would have otherwise been wasted in traditional processes.

The first and last-mile connectivity service by Freightwalla is its on-ground transportation for cargo. Customers can book transportation to and from all major ports across India. This service provides seamless movement of cargo with no multiple handshakes.

The hinterland served by Freightwalla

Exporters and importers residing in any part of the country can leverage Freightwalla's unified dashboard to plan and book shipments. Shippers can review and choose the best plans by comparing rates, transit times, schedules, and other criteria as per their business needs. A plethora of valueadded services help them optimize their logistics operations.

To which seaports does Freightwalla provide coverage?

At present, our platform already has rates for over 1000 port pairs available (this is growing with each passing day) & covers more than 30 shipping lines. Some of the most prominent regions covered by Freightwalla are the Middle East, Red Sea, Mediterranean, Gulf,

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Europe, Africa and Southeast Asia.

These regions are popular amongst the Indian EXIM fraternity.

Commodities being moved by Freightwalla

Freightwalla has been traditionally strong in the movement of agro commodities and food grains across the world. Additionally, we also serve sectors like textiles, lifestyle goods, auto components, oil & petrochemicals, engineering, heavy machineries, and pharma industries. We have already witnessed approximately 50% increase in our volume of cargo as compared to the previous financial year.

Growth and expansion plans at Freightwalla?

We will be aggressively expanding our presence and our customer base across the country in the upcoming year. While we have already built a formidable presence in the western and the northern parts of the country, we will now be eyeing to expand our presence in South India.

We will also be aiming to grow our footprint across global markets, business development has begun, and we are navigating that front.

Developing our product suite is also on the cards, and we are continually working towards it. Our plan for the future is to invest our resources in evolving technologies such as AI/ML, IoT, and others to strengthen our core tech structure and improve integration with customers and partners to serve them efficiently. We are also planning on embarking on additional supply chain services that would make us a force to reckon with in international trade. We have already taken a step in that direction by presenting an AI-powered cargo tracker for MSME exporters and importers.



"Jet Freight is working with top airlines and major sea ports globally. With a dedicated team for surface transport to serve in India, and with the help of 5000+ associated members, Jet Freight is successfully doing last-mile delivery globally."

- **Mr. Richard Theknath** Chairman & Managing Director, JetFreight

Logistics services, first and lastmile connectivity provided by Jet Freight

Jet Freight is in the freight forwarding business since 1986. It operates as an IATA freight forwarder since 1999, pioneering the air freight business in import, export and domestic shipments. With growing demand, clients need support in Ocean and last mile delivery as well, Jet Freight plans to expand the business in these segments. Jet Freight is working with top airlines and major sea ports globally. With a dedicated team for surface transport to serve in India, and with the help of 5000+ associated members, Jet Freight is successfully doing last-mile delivery globally, making the whole supply chain management a seamless approach. Richard Theknath adds, "we are also advancing our app, "Jet Freight", where people can fill in the details of the cargo, point of loading & destination within 60 seconds." Jet Freight plans to use multimodal transport logistics serving varied industries.

The hinterland served by Jet Freight

Jet Freight has 13 offices in India and a presence in Dubai and Netherland to cater to their clients apart from our network members, to cater our air and ocean shipments.

Commodities being moved by Jet Freight

Jet Freight is a leader in moving perishable products, general cargo, such as pharmaceuticals, chemical, auto, oil & gas, temperature controlled products and so on. It doesn't depend on the commodity, some clients prefer to choose the mode of shipment on their own, some prefer it based on committed delivery time. Jet Freight's sound experience lies in getting the clients' shipments delivered hassle-free.



"3PL providers and trucking companies are typical customers when it comes to just the first mile, but our primary customer base comprises of postal networks (CEP industry), Quick Service Restaurants and e-Commerce."

- Mradul K

VP, Global Sales and Strategy, LogiNext

First and last mile connectivity services provided by LogiNext

LogiNext is a transportation automation platform. Be it the first mile, middle mile or last mile, the LogiNext SaaS platform can be used by enterprises to digitize processes and gain real time visibility over transportation operations. 3rd Party Logistics providers and trucking companies are typical customers when it comes to just the first mile but our primary customer base comprises of postal networks (CEP industry), Ouick Service Restaurant (OSR) chains and retail firms (eCommerce) which use the LogiNext software for digitizing processes and delivering to the end customer in a better way. The LogiNext Web app along with the driver mobile app helps brands to deliver in the most optimum manner by leveraging on platform features like route

optimization, order auto allocation, delivery driver management and detailed analytics. We have clients in 5 continents which use the LogiNext platform for end to end visibility.

Hinterlands served by LogiNext

LogiNext's delivery management software is used by 200+ enterprise customers in 50+ countries. They would be using the software to deliver goods and parcels in the remote corners of the globe. From downtown New York and London to the rural extremities in Guatemala or India, the software would be touching lives everywhere.

Commodities being moved by LogiNext customers

3PLs and Transportation: These can be trucks carrying cars to mail packages to temperature sensitive items.

QSR chains: Quick Service Restaurant chains are usually delivering food and beverages.

CEP (Courier, Express and Parcel): Letters, Parcels (light weight or big and bulky)

Retail: Large retail enterprises into eCommerce can ship apparel, furniture, books, electronics and any other legal item!

Using technology to bring in rider efficiency

There are several features that help in increasing rider efficiency:

Route planning and auto allocation: Via the route optimization algorithm, hundreds of orders are planned and assigned to the available delivery riders in the most efficient manner.

Dynamic Order Management and Batching: Orders planned via the LogiNext platform have the capability of getting delivered together incase there are multiple orders to be delivered in a close vicinity. Through alerts and notifications, riders also get notifications in real time in-case the end customer changes a delivery time window or changes an order.

Analytics Dashboard: The most powerful screen is the reports and analytics page which gives insights on how closely are drivers complying to the routes, order acceptance rates and the accuracy while delivering orders.





POISED TO TAKE ON THE WORLD

The port's short transit times to India, Africa, and the Middle East, stands to its advantage. Starting with Ro-Ro operations, the port has expanded to bunkering and now is slowly moving to handle containerised cargo

BY VIJAY KURUP



nce it had wildlife roaming freely on its premises. In 2015 -16, it was the only port with a negative growth rate and with a declining number of vessel arrivals. That was five years ago. Today the Hambantota International Port (HIP) conveys a far different scenario. The Chinese-built port, in the southernmost part of the island, is set to become a fully functional multi-purpose port and according to its website, 'poised to take on the world'. The development of the port has had a checkered past. It was first mooted in 1970, but fell by the wayside. In June 2002, the Sri Lanka Ports Authority (SLPA) signed an agreement with the Canada-based

SNC Lavalin International to conduct a feasibility study for developing a port in Hambantota. In 2003 the study concluded that building a deep-water port was a feasible option. But SLPA felt that the studies were inconclusive and withdrew the project. In 2004, Sri Lanka was hit by the powerful Indian Ocean tsunami that ravaged the area. As part of the post-tsunami reconstruction plan, investment to develop a port in Hambantota was included in a 2005 Government drive. In October 2006, the SLPA signed a memorandum of understanding (MoU) for detailed design works of Hambantota Port Development Project with the Chinese consortium of China Harbor Engineering Company (CHEC) and Sinohydro Corporation Limited. This finally set the stage for the development of the Hambantota area into a full-fledged modern multipurpose port. But the tribulations of the port were far from over.

Project Developers for the port were Sri Lanka Ports Authority (SLPA); China Merchants Port Holdings Company Limited (CMPort) and Fujian Transportation Maritime Silk Road Investment and Management Company Limited. The first of the project was completed in Dec, 2012. The initial cost was USD 361 million, which was subsequently revised to USD 508 million. In the second Phase the project had to be revised upwards again from USD 808 million to USD 885 million.

Two loans were obtained from China Eximbank for Phase I, a commercial loan of USD307 million and a government concessional loan of RMB960 million (equivalent to USD141 million).

Phase 2 was funded by three commercial and preferential loans from China Eximbank. These included a USD 600 million loan with a preferential interest rate of 2%, a USD 65 million loan with a commercial interest rate of 6.5%, and a 1RMB billion (approximately USD143 million) government concessional loan with an interest rate of 2%. In all, for both phases, five loans were obtained from China Eximbank to finance the Hambantota project, amounting to USD 1.2 billion.

However, in 2015 and 2016, the Central Bank of Sri Lanka commented that Hambantota was the only port with a negative growth rate.

In 2017, the Sri Lankan Government, in order to extricate itself from the difficult financial position of paying off its external debts, which included the USD 5.7 billion of international sovereign bonds, maturing between 2019 and 2023, handed over the Hambantota Port to China Merchants Port Holdings (CMPH) on a 99-year lease. The transaction was worth USD 1.12 billion.

The port is operated by Hambantota International Port Group (HIPG) and Hambantota International Port Services (HIPS). The two companies were formed under the Public Private Partnership between Sri Lanka Ports Authority (SLPA) and China Merchants Port Holdings Company Limited (CMPort). CMPort would invest up to USD 1.12 billion, including USD 974 million to acquire 85% of the shares of HIPG and USD146 million for 58% of the shares of HIPS. The SLPA would hold the remaining 15% and 42% of the two companies. The concession



period would be 99 years with the possibility of earlier termination based on the terms set out in the contract.

In 2018, one year after HIP came under its new management, the port doubled its Ro-Ro business, with a 136% increase in the volume of Ro-Ro vessels handled, over the previous year. Vehicles coming from India, Korea, Japan and China were discharged at Hambantota Port for transshipment to the Middle East, South Africa and South America. From December 2020, Ro-Ro volumes have steadily picked up. At the end of June 2021, the Ro-Ro volume stood at 413.005 MT compared to 239.827 MT at the end June 2020. The port's short transit times to India, Africa, and the Middle East, stand to its advantage.

The RORO cargo was lured away mostly from Chennai, Mundra, Ennore in India and Gunsan and Pyeongtaek in South Korea. The main shipping lines transshipping from HIP are NYK, MOL, Hyundai Glovis, Kline, ZIM, Hoegh, SEALS Japan, and Eastern Car Carrier lines. The NYK Corporate Communication spokesperson, in an email response to Maritime Gateway said that they intend to scale up their operations in Hambantota, because the port had plenty of space for transshipment operations and car storage.

Bulk volumes increased considerably from 1,443 MT at end June 2020 to 578,327 MT at end June 2021. Liquid bulk increased from 179,151 MT at end June 2020 to 215,094 MT at end June 2021.

In June 2020, the port registered an overall volume of 420,421 MT. In June 2021, the volume rose to 1,206,425 MT, registering a quantum jump of 186%. The island's proximity to India gives it easy access to the burgeoning markets of the Indian Subcontinent.

HIPG has also expressed intentions to enter into the containerization business in the near future. It has 840 meters of berth length. The move however, has raised concerns among some industry experts in the country, since such a move would be a potential threat to Colombo Port as a major transshipment hub in the region. However, the officials have played down the threat, contending that Hambamtota would attract new businesses and the volumes would not be at the expense of Colombo.



Strategically located ten nautical miles from the lucrative global shipping route linking the Far East with the West that ply about 35000 ships annually, today it is the island's most diversified deep-water, multi-purpose port. The port has since diversified its operations. Its portfolio of services now includes container handling, general cargo, passenger, bunkering, bulk terminal, gas and project cargo.

To boost its bunkering credentials, HIP has taken up several measures to consolidate its status. The Ceylon Petroleum Corporation (CPC) signed a Memorandum of Understanding with HIP, to develop Hambantota Port as a strategic energy center in Sri Lanka.

HIP and Intertek Lanka (Pvt) Ltd have entered into a 10-year partnership to build a modern petroleum testing laboratory to provide assurance, testing, inspection and certification services in Sri Lanka. Sinopec Fuel Oil Lanka Limited (SFOL) has signed an agreement to provide bunkering services for vessels.

Liquid Bulk volumes of LPG, VLSO (Very Low Sulfur Fuel Oil) and MGO (Marine Gas Oil) increased from 179,151 MT last year to 215,094 MT, this year.

Hambantota is a potential area to invest in storage tanks, refineries, and liquified natural gas (LNG) and other bunkering facilities.

In January this year, the HIP tank farm received its first shipment of 15,000 metric tons of Marine Gas Oil (MGO).

In order to promote the ease of doing business, Hambantota Port has been declared as a free-port zone.

In a boost to the park, Hambantota

International Port Group (HIPG) and the Board of Investment of Sri Lanka (BOI) signed a Memorandum of Understanding (MoU) to promote FDI opportunities, inter alia, in the industrial park and in Hambantota.

The Sri Lankan government has invited global pharmaceutical companies to set up companies within the zone. All infrastructure facilities would be supplied by the Sri Lanka Board of Investment.

To boost hinterland connectivity a high-speed railway line is being constructed between Matara and Hambantota Port and Airport. Matara is the second largest city in Southern Province. It is a major commercial hub. The line is expected to be operational by 2023. Sri Lanka's Southern Expressway (E01) connects from Colombo and Galle to Hambantota.

To attract foreign investors, HIPG entered into a sublease agreement with the Industrial Development Board (IDB), to establish a smart Facilitation Center at the Hambantota Maritime Center (HMC). Sri Lanka's Hambantota International Port (HIP) signed a USD58-million deal with Maldivian company Seahorse Yachts (Pvt) Ltd, to assemble and export yachts from HIP's industrial park, establishing Sri Lanka as a yacht-building nation.

HIP still has a long way to go to be a dominant port in Asia. The high expectations are yet to be realized. Being a late entrant to the maritime community, it would need to be fiercely competitive to wean away price sensitive customers perennially scouting for the ports that offer a lower price point.

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LOGISTICS AUTOMATION HELPS BUSINESSES NAVIGATE THE NEW NORMAL

Next-gen automation, powered by cutting-edge technologies, is enabling logistics companies to enhance efficiencies and improve profitability



ven as global trade is resurging in a post-Covid world, supply chain management has emerged as an integral component for businesses. An efficient and effective supply chain, with a robust logistics system at its core, mitigates supply bottlenecks, yields competitive edge, and enhances profitability. While the pandemic heightened the challenges for organisations and drove them to recalibrate their sourcing and distribution structures, Covid-19 also acted as a catalyst for change, accelerating the momentum for a technology-powered transition.

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Through the pandemic, the e-commerce sector grew exponentially from 13% to 17% of total retail market, while paving the way for continued growth in the years to come. The Indian e-commerce sector is estimated to grow at a CAGR of 27% to reach the USD99-billion mark by 2024. The rise of e-commerce and the digital marketplace phenomenon are changing the dynamics of the market, both, in terms of buyer behaviour as well as business transformation.

Redefined benchmarks

Even as businesses adapt to the new normal, changing customer expectations pose a big challenge. Customers expect faster time-tomarket, reduced defect rates and customised products with greater transparency and at a lower price. On the other hand, the e-commerce and omnichannel sectors, which were already picking pace, have received a significant push during the pandemic, further adding to the challenges for the logistics sector. Additionally, increased eco-consciousness and sustainability concerns have compelled businesses to adopt green supply chain management strategies. Alongside these concerns, companies are beginning to explore on-demand manufacturing which while being good for customers translates into more work for the logistics industry. These challenges have underscored the need for a robust logistics service.



Businesses need a resilient and agile logistics service to not only anticipate risks and develop mitigation strategies but also quickly respond, recover, and thrive.

To thrive in the highly disruptive environment, businesses are reexamining their conventional operations and recalibrating supply chain strategies to improve efficiencies, lower costs and ensure sustainability. For this, an efficient logistics system can be a critical differentiator, and technology can serve as a key enabler.

Providing inventory visibility across channels, technology drives proactive management that is critical for both, business-to-business transactions, and direct-to-consumer sales. It has also accelerated the speed with which order volumes move both up and down the supply chain. Logistics companies can achieve speed, efficiency and resiliency demanded by today's complex markets by integrating automation, digital connection, and cuttingedge technologies such as artificial intelligence and robotics.

Robots: The future of processes

The most visible application of automation in the logistics sector, robots are increasingly being deployed to execute processes across the logistics value chain. They offer far greater levels of uptime over manual labour, thereby providing significant productivity gains and profitability for businesses. Technological growth over the past few years have led to the development of new-age robots that combine AI. machine learning, better sensors and response capabilities. While in the past, robots were limited to industrial manufacturing primarily because they were not considered safe for people, the new age robots are not only safe but also perform an array of repetitive as well as complex activities.

New age logistics robots are designed to achieve proficiency that matches and exceeds human capabilities. These devices, backed with enhanced hardware and developments in AI, provide human-like dexterity, improved vision, and quick, agile movement. Logistics robots such as automated guided vehicles (AGVs), robotic arms, mobile robots, etc. cut around 70% of warehouse labour costs and help businesses function roundthe-clock with minimal costs. Rapidly gaining acceptance in warehouses and facilities across the sector, the global logistics robots' market is projected to grow at a CAGR of 16.4% to attain a size of USD17.82 billion by 2028.



Collaborative Robots: Safety assured

Like logistics robots, collaborative robots or cobots are a major trend transforming the logistics sector. Unlike conventional industrial robots which work for humans, cobots are robots that work alongside humans. They are designed to work with people and so safety is the key. Research shows that human-robot teams were 85% more productive than robots or humans alone. Cobots are designed to assist the human associates and not replace them completely. Their biggest USP is their low cost and ease of deployment that allows even small and medium-sized warehouses to deploy automation and reap its benefits.

Cobots are emerging as a necessity for large warehouses and fulfillment centers where accurate, consistent, and quick movement of goods is required. They are designed to significantly increase productivity, reduce wasted motions, generate labour savings, and improve the overall safety of a facility. Cobots are easy to integrate, create lower and flexible capital costs, increase accuracy, reduce human error and boost productivity levels. Unlike hard-programmed robots which lack agility to handle the number of diverse tasks that crop up during order-fulfillment, cobots are flexible, safe, and easily programmable. They can be programmed on-the-fly to accommodate shifting priorities within the warehouse.

Cobots are the workforce of the future for multiple sectors. Cobots come with truly amazing benefits that could revolutionize the manufacturing industry with their precision and endurance for any repetitive task. Further enabling the workforce to collaborate in a safe environment. ABB's GoFa and SWIFTI cobot families expand the portfolio to create the most diverse cobot portfolio on the world. This will help accelerate automation and open doors to first-time users across multiple sectors, such as healthcare, logistics and retails including small and medium enterprises, which currently have low levels of automation on the shop floor. Cobots will significantly expand

the potential for automation for every player in the industry.

Automation: Efficiency plus productivity

AUTOMATION

How do businesses thrive in a competitive environment? Automation of logistics operations is the answer. Automation of logistics operations offers multiple benefits for businesses. It reduces the drudgery involved by taking over tasks that are physically demanding and non-value adding while at the same time improving efficiencies leading to faster order handling and processing. Robotic automation has shown to deliver a demonstrable return on investment through higher throughput, combined with improved accuracy, thus cutting down the rate of returns and improving customer satisfaction.

A growing category of devices such as autonomous mobile robots (AMR), aerial drones, automated guided vehicles, automated storage, and retrieval system, etc. can be programmed to perform tasks with little or no human intervention. The automated devices help increase worker productivity, reduce error rate, cut down the frequency of inventory checks, optimise picking, sorting, and storing times, and significantly reduce longterm costs.

Automation of e-Commerce warehouses especially work on the basis of "Goods to Person" in most modern set-ups where a combination of multiple stacker cranes, sequencing systems and buffer creation systems help in delivering the goods from the racks in which it is stored to the dispatch agent either on First in First Out (FIFO) or Last in First Out (LIFO) or random sequence basis. ABB's newly launched modular solution of FlexBuffer is an interesting innovation in Robot Storage and Retrieval System (RSRS), which helps in automating major part of the Goods to Person process in a modern warehouse.

Post the acquisition of ASTI robotics a global leader in AMR (Autonomous Mobile Robots), ABB will be the only organization to offer a complete automation portfolio of AMRs, robots, and machine automation solutions, from production to logistics to point of consumption. This unique selling

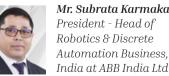
Rapidly gaining acceptance in warehouses and facilities across the sector, the global logistics robots' market is projected to grow at a CAGR of 16.4% to attain a size of USD17.82 billion by 2028.

proposition will prove a gamechanger for customers as they adapt to the individualized consumer and seize opportunities presented by significant changes in consumer demand.

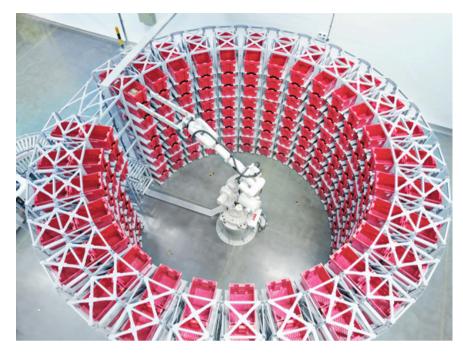
Automation all the way

The fast-changing operating environment is forcing businesses to evolve and adapt. This has placed the logistics sector under severe pressure to deliver better services at ever lower costs. While the challenge seems daunting, automation can help businesses ride the wave of change. According to a recent McKinsey report, growing shortage of labour, increasing demand from online retailers and technical advances will be three game-changing supply chain technologies. Logistics companies must remain lean and agile to keep up with the competition, especially, to keep up with the speed of deployment. More automation in picking, packing, and sorting will serve as the catalytic factor to meet same-day delivery requirements.

Automation can also be leveraged to work around the challenges posed by labour; it allows logistics companies to offer better service and save money at the same time. For logistics companies to navigate the challenges of the future and operate and succeed in a highly volatile environment, it is imperative to upgrade their legacy environment through large-scale automation. Automation can help logistics firms improve efficiencies and achieve economies of scale and thrive in the face of stiff competition.



Mr. Subrata Karmakar, President - Head of Robotics & Discrete Automation Business,







HAROPA PORT CROSS THE 3 MILLION TEU MARK

"Even during these stressful times of the pandemic, HAROPA PORT has breached the 3 million teu mark for the first time ever in its history," **informs Capt. Ram Iyer, India Representative, HAROPA PORT and President, MANSA**

You have a vast experience and at Seahorse Shipping, you have been heading many of these verticals. What are the current operations at Seahorse group and what kind of services the company is providing?

We are the leading ship agency house in India. We are into the whole gamut of shipping and forwarding logistics including **containerized liner shipping**, Tramp and vessel agency, empty container depot operation, freight forwarding, warehousing, 3PL logistics, container leasing, international ports presentation, etc.

The ship agency is our core competency now in India and we assure principles of our best service. With reference to liner trade, we presently represent leading shipping lines including China United Lines. KMTC in East Coast of India, Ceylon Shipping Corporation, MTT- a leading Malaysian container line. We are also the agents for VIMC, which is the Vietnamese National Lines. We also represent MSS (Maldives Shipping Lines), etc., and of course and a host of leading NVOs. Within the group, we also are associated with YML: we have a joint venture called YMI. With reference to tramp vessels we are the general agents in India for BHP, Sanco Lines and we regularly cater to global commodity **majors** including BHP, Anglo American, Trafigura etc. and most of the operating majors. As agents, we handle the full spectrum of commodities, containerized, tramp, bulk, break bulk, tankers, special projects including IMO Class I and Odyssey.

How has been the trade growing among Indian ports and HAROPA, have you seen considerable increase or interest in using HAROPA PORT?

HAROPA PORT has just released the latest press release and we are pleased to share that HAROPA PORT has breached the 3 million teu mark for the first time ever. We are not talking about pre-pandemic or post-pandemic period. For the first time ever in the history of HAROPA PORT, we crossed the 3 million teus and this is significant. Now coming to Indo-Europe or India HAROPA PORT volumes, you would see a consistent growth has been achieved over the last few years. Of course 2020 was a difficult year for everyone but we are pleased to share that there has been an average growth of close to 7% - 11% on a year-on-year. Now, when you are talking about ports the first things on our **port promotion page** is that various ports in HAROPA's neighbourhood are reeling under congestion, but HAROPA PORT with its ample capacity is able to cater to all things and there has been nil congestion till date and it has been open for business right throughout the entire period, even during Covid.

Let us keep business aside. You are leading MANSA as President. So, what are your plans as President for the association?

I look forward to working together with all the ship agents. Of course, top of the agenda will always be ease of doing business for us as agents

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and of course for the entire shipping and logistics framework. The **agenda includes** endeavours on enhanced membership, working closely with Customs, every other stakeholder in logistics and exim supply chain.

What do you want to see Government of India or Ministry of Ports and Shipping change in the industry?

Personally, top on the agenda would be to support green shipping, ensuring **clean motorways** over the next few years. The Indian Government has committed itself to the COP 21, you have the Paris Accord and now you have the Glasgow Accord. Number 2, we need to ensure more digitalization, not just on paper, but actually practical and effective. We have the Port Community System, now the **board** of our Finance Minister just talked about in the budget a couple of days ago. He talked about a national logistics platform or the unified platform, it is a wonderful stuff. This initiative has been on the map for more than about a couple of years now and I was part of that brainstorming sessions with various other people of the industry but we need to see that being effective and practical and being really used, this will ensure paperless, digital, ease of doing business. I would applaud Indian Customs or especially JNPT Customs for the initiatives they have taken in ensuring ease of doing business, but there are still miles to go like ensuring faceless customs; yes, faceless customs is there but faceless customs in a practical way, not just on paper.

RAIL FREIGHT ON THE FAST TRACK

n December 2021, Vishakhapatnam was beset with a huge backlog of 4000 import containers bound for Nepal. CONCOR which reportedly operated about 20 rakes a month, scaled down to eight rakes a month. Reportedly they were evacuating only those containers that were assigned to them. What led them to scale back their operations?

On June 29 last year, the Nepal-India Railway Service Agreement (RSA) was amended to boost rail cargo movement between the two countries. The agreement, inter alia, had permitted authorized cargo train operators to utilize the Indian railway network to carry Nepal's containerized shipments and other freight, which hitherto was conducted exclusively by CONCOR. However, with the opening of this sector to private operators, CONCOR which reportedly operated about 20 rakes a month, scaled down to eight rakes a month that led to the huge pendency of containers. For Nepal, an import dependant nation, the dip in the movement of containers was not without impact.

The transit arrangements between India and Nepal are governed by two legal instruments: viz India and Nepal Rail Services Agreement (RSA) signed in 2004 (renewable every ten years) and The Treaty of Transit. The RSA was executed on 21.05.2004 between the Governments of India and Nepal for the introduction of freight train services between these two countries. This agreement guided the movement between India and Nepal by rail. The freight train service was from Raxaul, India to Birguni, Nepal. The agreement was necessitated since there existed no previous arrangement for rail movement between the two countries The RSA amendment was in accordance with India's efforts to enhance regional connectivity under the "Neighbourhoods First" policy.

A provision in the RSA stated that the Agreement would be reviewed every five years and modified, if required, by the contracting parties through Letters The redefining and insertion of many terms into the Nepal-India Railway Service Agreement, is a potential indication of expansion of trade between India and Nepal. Opening the sector to private CTOs promises better freight services

BY VIJAY KURUP

of Exchange (LoE). A LoE was signed between India and Nepal on June 29 last year, that came into effect on 09.07.2021.

Broadly the LoE agreement stated that:

Cargoes in all categories of wagons that can carry freight on the Indian Railways (IR) network, could now carry freight to and from Nepal. Wagons owned by Nepal Railway Company will also be authorized to carry Nepalbound freight from Kolkata/Haldia to Biratnagar/Birgunj, over the IR network.

All authorized cargo train operators which include public and private container trains Operators, automobile freight train operators, special freight train operators or any other operator authorized by IR will be able to utilize the IR network to carry Nepal's container and other freight. Wagons owned by Nepal Railway Company will also be authorized to carry Nepal-bound freight from Kolkata/Haldia to Biratnagar/Birgunj, over the Indian Railways network as per IR standards and procedures.

The agreement ended the exclusive right of CONCOR to carry shipments to Nepal. The elimination of exclusivity is expected to bring in market forces in the rail freight segment in Nepal, and further it is likely to increase efficiency and costcompetitiveness, that would eventually benefit the Nepalese consumer.

An executive from the industry who did not wish to be identified said that there was a potential to increase the Nepal bound volumes with the Private Container Train Operators being allowed to operate. Nepal is an Import driven market and very few exports are taking place. With more train operators to choose from, the Nepal trade will get the benefit in rail haulage cost which otherwise was monopolistic with a single rail operator running rake in this circuit. Further he felt that prising the sector open to private players, would bring in more efficiency in operation, better service levels and stabilization of costs to the end customers.

The ICD at Birgunj was operated by Himalayan Terminal Private Limited, a Nepal-India joint venture terminal management company. The Nepal Intermodal Transport Development Board (NITDB) had awarded the management contract to Himalayan Terminal. The Birgunj ICD is Nepal's first rail-linked terminal to the Gateway ports of Vishakhapatnam and Kolkata. It was constructed in 2000 with World Bank assistance. Currently only Kolkata and Visakhapatnam are connected to ICD Birgunj.

The other three active dry ports are Biratnagar, Bhairawa and Nepalgunj ICD. In addition, five more ICDs are planned at Tatopani, Rasuwa, Kathmandu, Kakarbhitta and Dodhara Chandani. The Inland Clearance Depots are connected by road and/or by rail, to a seaport or other international dry port and operate as a centre for transhipment and importation of cargo by sea, to inland destinations in Nepal.

The route via Kakarvitta, Panitanki and Banglaband is with the port of





Mongla in Bangladesh and Chittagong but that is not operational yet due to high logistic cost of transporting freight to Bangladesh and lack of infrastructures. India has a big role to play in facilitating Nepalese trade via Bangladesh.

The volume of the exim movement to and from Nepal is about 75,000 to 100000 teus per annum. Rajan Sharma, CEO, Quality Freight Service Pvt Ltd, felt that, with the private sector being permitted to operate rail services the choice for the traders has increased. He believed the capacity of the government to negotiate smooth operation with CONCOR and with other private railway operators had been a major problem.

With new operators coming in, Rajan felt that the new terminal operators will have to manage the terminals better than the earlier incumbent M/s Himalayan Terminal Pvt Ltd. He expected to see more reduction in cost, improvement in time and better management of terminal inventory and warehousing. He further stated that there was also a need to integrate automation of terminal operators with a standard SOP for all terminals which is Transparent, accountable and easily accessible.

Bandaru Mohan, Executive Director with Pristine Group of Companies, Nepal and Eastern Region said in an email response to Maritime Gateway, "the idea is to have fair competition and the trade would be facilitated by lowering costs and improvement in Digitisation and provision of modern equipment (once private Sector operates the terminal) and efficient service round the clock are some of the major boosters."

Currently two private container train operators are operating along with CONCOR. Pristine Group has 8 rakes operating from Visakhapatnam, J M Baxi and Concor reportedly have 2 and 8 rakes respectively. Mohan said that more trains would be introduced in the month of March. The situation, he hoped would considerably improve by then. In the meantime, Maersk Line has pitched in to clear some containers stranded at Visakhapatnam port.

What necessitated a fresh LOE was the fact that large developments have taken place in the intermodal movement which required changes to the RSA. The scope of the rail services has SINCE been expanded with several amendments requiring redefining of terminology.

The agreement now covers freight rail services between Haldia/ Visakhapatnam Port, Kolkata and any other ports in India with ICD Birgunj and any other agreed ICD/ICP stations in Nepal.

A very wide spectrum of rolling stock has been defined into the RSA. ICD Birgunj has been defined as Inland Clearance Depot. Provisions with respect to movement of rail traffic have been added. The rail traffic between the two countries shall comprise all types of cargo in all types of rolling stock which are permitted to move on the Indian Railway network including container/ reefer container traffic moving in Flat Wagons, breakbulk, bulk and bagged cargo in covered wagons and over dimensional cargo. Reefer containers too have been defined and inserted into the Articles of the RSA. Reefer containers are allowed for movement and Power Points are available at the dry port. The major importers M/s Dabur Nepal and ITC, Coca Cola. Juice Concentrate and Pulp are imported apart from Chocolates and Frozen food.

All types of locomotives running on the Indian Railway system can be used to haul the rolling stock between India and Nepal. The movement of reefer containers has been subject to a minimum of 14 FEUs (forty feet equivalent units). Wagons owned by the IR or other authorized cargo train operators licensed by IR will be allowed for movement between the two countries.

VCTPL is connected to ICD Birguni. With more rake operators available, there is a good potential for enhancing the Nepal bound volumes through Visakhapatnam. The direct call of main line vessels combined with marine and rail infrastructure makes Visakhapatnam a viable alternative to Kolkata and Haldia. There has been substantial progress in the Customs procedures as well. Customs processes have been simplified with the implementation of the Electronic Cargo Tracking system (ECTS). The customs infrastructure has been set up and connected through EDI at both ends.

The opening of the sector to private operators and the addendums in the RSA augurs well for the trade. With multiple players in the field, the market forces will bring in rationality in the cost structure. The redefining and insertion of many terms into the Nepal-India Railway Service Agreement, is a potential indication of expansion of trade movement between India and Nepal. It also promises of ease movement of goods between the two countries. Opening the sector to private train operators, is flagging the train in the right direction.



WHY DARK STORES STORES ARE HERE TO STAY

Dark stores act as last mile storage spaces that facilitate efficient movement of goods across urban areas with cost optimization and efficiency benefits.

t a time when consumers expect instant gratification, it is no surprise that last mile deliveries are gaining huge traction. Online shopping was already a hit before the pandemic and further accelerated when people were confined indoors. As global shopping volumes increased, ecommerce brands scrambled to outperform each other with superior customer experience. Same day deliveries or quick commerce was thus a strategic move adopted by retailers to stay afloat amidst fierce competition and brands started partnering with 3PL logistics and warehousing providers to achieve faster deliveries. According to a recent report, the *quick commerce market is poised to become a \$5 bn market by 2025* and last mile delivery is one of the key determinants of customer satisfaction.

Achieving last mile delivery at reduced costs was quite a challenge for businesses. But that's when 'dark stores' came to rescue. For the uninitiated, dark stores are micro-warehouses located in close proximity to high demand areas. Dark stores aid last mile deliveries for groceries, personal care products and their utility is slowly spreading across other categories as brands turn to

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third party logistics and warehousing providers to optimize operations for speedy delivery. Let's understand in detail how dark stores can address key challenges pertaining to last mile deliveries.

Reduces logistics costs

Dark stores are similar to brick and mortar retail stores but aren't designed to accommodate customers inside the store. Dark stores are centers exclusively dedicated for fulfillment operations. They are located in strategic urban areas closer to customers which significantly reduce the pick per unit and last mile costs. As dark stores only have goods meant to meet internet orders, it drives



better efficiencies and can help save between 10% and 30% of logistics costs.

Stores an extensive range of products

The layout of dark stores is such that it facilitates better storage and picking capabilities. Businesses don't have to spend on the aesthetics or interiors of dark stores as they aren't built for instore shopping. With a dark store that houses a focused set of high-demand products, there is a better opportunity for businesses to store more product varieties as opposed to traditional retail stores. More product options to choose from mean increased customer orders and better profits.

Facilitates easy storage and delivery of perishable goods

Perishable products like groceries, milk and meat need to reach the customer doorstep within their respective expiry windows. Dark stores help maintain the freshness of perishable products and enable quicker delivery owing to their proximity to delivery points. Especially during the pandemic, consumers were forced to stay indoors and safety concerns made even the most simple tasks such as grocery shopping seem daunting and stressful. Retailers tied-up with dark store service providers and



ADITYA VAZIRANI CEO, ROBINSONS GLOBAL LOGISTICS SOLUTIONS

Dark stores aid last mile deliveries for groceries, personal care products and their utility is slowly spreading across other categories as brands turn to third party logistics and warehousing providers to optimize operations for speedy delivery. capitalized on this opportunity with the promise of instant, contact-less deliveries.

Facilitates round the clock operations

Dark stores operate round the clock to fulfill customer demands. Due to the strategic location of dark stores, orders can be delivered at the time most convenient for customers. Customers have the freedom to choose a time slot as dark stores are optimized for easy pickup and delivery.

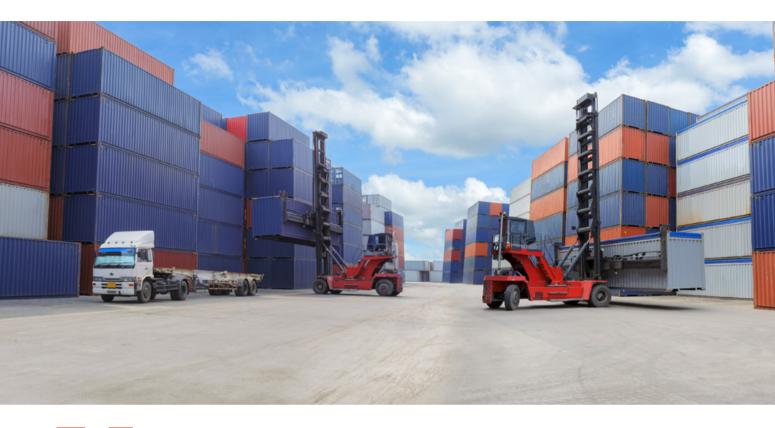
Fulfills on-demand delivery needs

Dark stores are highly effective to cater on-demand delivery requirements. Customer expectations are constantly evolving and the order and purchase process is quite different from what it used to be a few years ago. A consumer stumbles upon a product when casually browsing online, makes an impulse decision to buy it and expects delivery within a matter of a few minutes or hours. Such on-demand delivery requirements are possible with dark stores as they facilitate optimized SKU management and better last mile connectivity. Dark stores are an efficient solution to keep up with the unplanned ordering behavior observed among today's comfort-oriented consumers.

Winding up

Dark stores are revolutionizing the last mile delivery landscape as consumer convenience, meeting growing demand and accessibility takes centre stage. It has changed the way products are delivered to customers. The rising demand for dark stores has led to the robust growth of urban logistics spaces. *The urban logistics space is expected to* surpass 7mn sq.ft in India by 2022. Dark stores act as last mile storage spaces that facilitate efficient movement of goods across urban areas with cost optimization and efficiency benefits. With greater product assortment, super-efficient order fulfillment and better view of stock levels and inventory management aided by technology, dark stores undoubtedly unlock the path towards fast, dependable and accurate product delivery. 📾

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et again Maersk has upped the ante. It has broken away from the ranks and stepped into an area, where no other shipping line has trodden before. Maersk's entry into the freight forwarding business has ruffled the feathers of the freight-forwarding world.

In another emerging trend and probably for the first time in India, Maersk Line, in a Mini Land Bridge move, has been diverting export shipments from India's east coast, to west coast ports, to circumvent the transshipment delays at Colombo by deploying dedicated block trains. Four block trains have been used to move the trains from east coast to Mundra and Nhava Sheva. It is a strategic move to add one more component of the supply chain to their repertoire of services.

Are mergers going to be the new trend? Would this move by a shipping line, stepping into new turf, improve the quality along the length of the supply chain? Would it create

ENTERING UNCHARTERED TERRITORIES

Shipping lines are entering into freight forwarding to become an end-to-end service provider, but Freight forwarders suggest the best way to achieve this is through cooperative models with ownership

BY VIJAY KURUP

an existential crisis for the freight forwarding community? The maritime world is certainly in a state of flux and uncertainty.

The Copenhagen based shipping giant, has been on the prowl for quite a while now. For the last two years, Maersk has been on an acquisition mode. On February 8, 2019 Maersk acquired customs broker Vandegrift. On February 19, 2020, Maersk increased its footprint in the U.S. warehousing network with acquisition of Performance Team. On July 6, 2020, Maersk acquired KGH Customs Services. On August 6, 2021 Maersk acquired Visible SCM and B2C Europe. On September 15, 2021, Maersk acquired Huub, a cloud-based logistics startup that specializes in technology solutions for B2C warehousing in





the fashion industry. On November 2 2021, it completed the acquisition of Senator International, a global freight forwarding company with a strong airfreight offering.

PSA International, the leading container terminal operator, has bought BDP International, the global logistics solutions provider managing end-to-end movement of shipments.

CEVA Logistics AG in 2019, had entered into a strategic partnership with CMA CGM in a bid to leverage its worldwide liner activities. The company would be sharing resources with CMA CGM in the field of procurement, operational and commercial expertise. CEVA had claimed its goal was to increase its footprint in the logistics sector.

DP World had acquired US-based automotive and technology logistics specialist syncreon specializing in the design and operation of supply chain solutions for Automotive, Technology, Consumer Home Products, Industrial companies.

Why the sudden interest in freight forwarding companies? According to Ti Insight The global freight forwarding market grew by 19.0% in H1 2021, bringing the market value to €195,072m. Almost all regions saw double-digit growth in H1 2021, which has been driven by large-scale economic rebound in the wake of reopening after Covid-19. Only the Middle East and North Africa (MENA) did not see double-digit H1 growth. The freight forwarding growth in H1 2021 was expected to be high as it is being compared to a very low base in H1 2020 due to the Covid pandemic.

The growth is driven in large part by North America and Asia Pacific, which have grown by 22.6% and 21.8% respectively in H1 2021. The air forwarding market experienced faster growth, expanding at 26.0% over the period, while the sea forwarding market saw slower growth of 10.4%. Fiscal support packages implemented throughout 2020 and the reopening of economies have already boosted consumer demand in H1 2021 and promoted growth within the freight forwarding market. The IMF's global forecast predicts that global GDP growth will rebound in 2021, with real growth of 5.9% expected according to the IMF's October 2021 World Economic Outlook. As a result, the global freight forwarding market is expected to bounce back in 2021, growing at a rate of 12.0% in real

terms compared to 2020 (€183,652m).

However there have been rumblings of discontent among the freight forwarding community. A litany of fears has been expressed over this unprecedented move.

Will the carriers not be offering their services to freight forwarders? Or would they be very selective about it? Would the Maersk move end up cornering all the door-to-door businesses, putting others out of business? Some have interpreted this as an abuse of its dominant market position. Others feared that Maersk was likely to prevent forwarders loading cargo out of the lucrative Asia to Europe and the US routes.

Sandeep Sahae, CEO of KAR Freight Forwarding, said, "shipping lines are creating one stop solutions and will try to eliminate mediators like freight forwarders, CHAs and freight brokers. It will definitely bring down the freight forwarders importance and role specially for large exporters and importers. For SMEs however, freight forwarders will still play an important role."

However, others have played down the looming threat. They believe that Maersk would not be able to provide





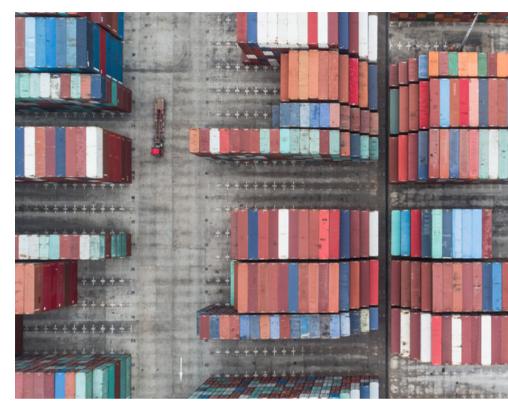
a personalized service. The service would be impersonal and consigned to the back office. Further there was the risk of putting all your eggs in one basket, said an executive from a freight forwarding division who did not wish to be identified.

Shankar Shinde, Chairman, FFFAI, was unfazed about the new development. In an email response to Maritime Gateway, he said, "Maersk's explanation to foray into FF business (that they are responding to their customers' demand) to offer end-to-end services is loud and clear. We cannot stop the new entrants in business and it's well said that competition is always good for the economy. Rather this is good for us as they understand the business model as it looks greener from the other side."

He was confident that it was not their domain expertise they are entering into and would fail miserably. He went on to say, "We have already experienced the Liners' failure earlier entering into the Freight Forwarding business and finally they had to close down their offices like DAMCO, Maersk's Logistics Division."

He further went to clarify, "Every product has a life cycle and also the services sector would sustain still a bit better, however the bandwidth at which the giant operates would not be in position to control such forwarding as they would require customer touch and tailor-made services which we know is not possible to retain at their level. Economy runs only when there is a support system, be it raw material or services. If a person consuming a product think of getting into production of the same product and also manufactures raw material in-house then where is the value addition as the funds and value and product remain all in-house"

Vikash Agarwal, Managing Director, Maersk South Asia, in an email response to Maritime Gateway, explained their justification for starting this new venture. He said," Maersk started off its transformational journey, from being a shipping line, to an integrator of container logistics a few years ago. Our mission since then has been to connect and simplify our customers' supply chains and we are undertaking several measures to achieve this. We started



The global freight forwarding market grew by 19.0% in H1 2021, bringing the market value to €195,072m. Almost all regions saw double-digit growth in H1 2021.

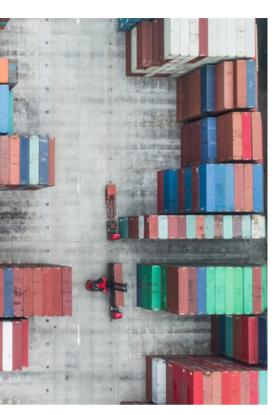
this journey from a position of strength in the form of our ocean network. Our ambition is to build on this network with blocks that cover all the logistics requirements our customers have and offer products and services that would enable them to have end-to-end solutions."

He went on to clarify, "The simple idea is this: if our customer was a chef and he wanted to cook a delicious dish, he would go to a supermarket and on the shelves there, he would find everything he needed for his cooking. We want to be that supermarket where our customers have an array of solutions under one roof that they can pick and choose from."

He emphasized, "The benefits of this model are multifold. To start with, the customers need to go to a single logistics partner who would take care of their landside transportation – be it by road or rail, storage options at warehouses and depots, customs clearances, port handling and of course shipping. Plus, they now also get the option to ship their less-than-containerload (LCL) cargo as well, even on airfreight with our vast set of offerings. The same will be available at destination too for the customer, thus avoiding working with multiple vendors."

Agarwal continued, "A single partner for all the logistics requirements means that there are lesser handovers, better visibility throughout the journey and greater control over the movement of cargo. While these are the immediate visible benefits to the customer, there are some far reaching ones too that don't meet the eye immediately. With end-to-end logistics being handled by a single partner, the planning and





allocations are more solid, inefficiencies in the system are reduced and ultimately, the service reliability is increased. This indirectly also brings down the costs through the synergies that we are pulling together."

Girish Singla, Director, RTW Logistics Pvt Ltd, concurs. He said, "the apparent rationale behind the Maersk move, to take on different segments of the supply chain, was to simplify the logistics of carriage of goods, to make it not only more streamlined and visible, but also predictable." He went on to add, "the entire exercise was to enhance control, all along the supply chain. He was of the opinion that giant conglomerates like IKEA, Walmart, etc would stand to benefit, since the amalgamation of various activities under a single umbrella would obviate the need to handle different companies exercising different functions."

Such radical moves have their own leverage. It catalyzes change. It brings in space for innovation and ingestion of cutting-edge technology.

Agarwal elaborated, "Another important aspect that Maersk brings to the table through its integrated solutions is that of technology. Be it a large customer or small customer, we have digital solutions and platforms to cater to every type of shipper – platforms that allow them to get quotes, confirm bookings, track shipments, process documentation and make payments, all at the click of a button.

Our customers who are using our integrated solutions are already experiencing their simplified supply chains and benefiting from the fact that they can focus on their core business better while leaving their logistics to a trusted partner they find in Maersk. It is a bit early to substantiate the savings in terms of money yet as the solutions continue to evolve and more synergies are getting built in."

Shinde however had a caveat. He said, every product has a life cycle and also the services sector would sustain still a bit better, however the bandwidth at which the giant operates would not be in position to control such forwarding as they would require customer touch and tailor-made services which we know is not possible to retain at their level. Economy runs only when there is a support system, be it raw material or services. If a person consuming a product think of getting into production of the same product and also manufactures raw material in-house then where is the value addition as the funds and value and product remain all in-house. They have already burnt their fingers earlier and now let them also have bigger experience as such ideas are sponsored by persons with vested interests to fulfil their wishes and not the organization."

"However," he continued, "management should learn from their past experiences before taking any such decisions where we have seen many of the companies being washed out due to disruption in the logistics industry," he warned.

Shinde stressed on the need to change with the times. He said, "On the other hand, despite having domain excellence and specialization on specific services as a USP, every person in the system has to change their business models depending upon the revenue stream and the opportunities. Logistics Service Providers should look forward to various other vertical businesses or adding up to business in forward or backward integration." He further added that, they should look forward to the opportunities in Freight Forwarding, Warehousing and Transportation, and integrate with the partners in the international supply chain arena to be known as 'End to End Logistics Service Providers' emphasizing/establishing single window proficiency. He agreed that, "setting up infrastructure may be a challenge and therefore Logistics Service Providers (LSPs) should seek for partnering model to show their presence at various destinations and networking for providing services. The best way to achieve it is through cooperative models with ownership."

But the skepticisms remain. Though some have welcomed the move, others were more cautious in their approval. The move could create conflict of interest. A well-established multinational freight forwarder, has reportedly warned that ocean shipping lines entering the broader logistics chain, risk losing business from freight forwarders, and have underlined the importance of each player in the freight industry.

Do such moves smack of abuse of their dominant position? Would it lead to abandonment of the freight forwarding community? Whatever be the case, the mergers have certainly roiled the logistic market. Bringing in a new dimension is always an opportunity to be leveraged. It is an opportunity for others in the forwarding community to springboard their services to an entirely new level, by inducting cutting edge technology. The freight forwarding industry is now looking towards digitalization of its processes. The 'digital freight forwarders' are developing their own platform to connect shippers and carriers. It is an opportunity for the entities to leverage their technological edge. Whatever be the case the players have entered uncharted territory with additional infrastructure at their disposal.

What differentiates the best from the crowd? The caliber of men manning the support systems, being equal, it is the quality of infrastructure that elevates the front-runner from the mediocre. It is not necessary that the biggest may always take the pie. Evolution is survival.



ACADEMIA AND INDUSTRY COLLABORATE TO EXCEL

The Centre of Excellence for Logistics and Supply Chain at NITIE is a first of its kind in India for providing academic support to the industry



he Centre of Excellence for Logistics and Supply Chain at NITIE is a first of its kind in India. It was inaugurated by Sri. Piyush Goyal, Minister for Commerce & Industry in September 2021. The idea is to use the academic strength (faculty, Ph.D students) of NITIE, take project related interns on board on case-tocase basis and invite global experts to conduct programmes, thus NITIE will operate as a centre of excellence providing academic support to the industry. Today we have Sagarmala, Bharatmala, PM Gati Shakti and several initiatives, but what is the overlap and connect in these programmes, and what academic support is required in them these aspects will be looked into by the Centre of Excellence.

"NITIE has been supplying skilled

workforce to the logistics and supply chain sector in India and internationally. For the past one and half year NITIE has started courses for digitalisation of supply chain and management, analytics and its application in various logistics domains. In the current context studies are in progress to reduce ship emissions," informed **Prof. Manoj Kumar**



Tiwari, Director at the Centre of Excellence. "NITIE is among the few institutions that offer structured programmes for industrial engineering, which

is the mother of supply chain research. The courses offered at NITIE are in sync with needs of the industry - The institute has done time and motion study for Adani Mundra port and JNPA. The industry and academia are on two separate tracks that need to be bridged

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and NITIE is just doing that, shared **Atul Kulkarni, Director, Eurasia Special Technologies Pvt Ltd.**

Prof. Hema Date, Dean, Student Affairs & Placements, Professor – Analytics & Data Science, detailed on the functioning of NITIE, objective



and thought process at the Centre of Excellence. The research gaps addressed by consulting process at NITIE. "NITIE is dedicated to help Indian businesses make their presence felt globally. It contributes to reducing the logistics cost, conducts research in logistics and supply chain management, provides consulting in IoT, AI, ML and Analytics."





Mr. Umesh Grover, Secretary General, CFSAI recalled, "Logistics is the fastest growing sector, a lot of investment is going to come in

India. After the pandemic a lot of things happening in China will shift to India, such as the semiconductor industry. But India is short on infrastructure and much of it is yet to be created. Indian ports should focus on becoming net zero today, to meet the 2030 target. Whatever is being constructed at the ports should be with a vision for the next 150 years, here consultancy from NITIE has a crucial role to play. CFS have grade A infrastructure but they are currently using only 50% of their capacity. This capacity can be better utilised by handling coastal cargo in addition to exim cargo. Similarly small

grade manufacturing has been allowed in warehouses and NITIE can provide consultancy for the same."

Atul Karate from Indian Oil Tanking, shared, "Since the logistics industry is very dynamic, trainers should be consistently updated with the latest trends in the sector. Here the industry has a direct role to play at the Centre of Excellence. NITIE also has a direct role to play in promoting Atmanirbhar Bharat or Make in India initiative. Further considering the Ukraine crisis, India can boost its exports with early mover advantage."

Capt. Ram Iyer, President, MANSA highlighted, "The academia and the current industry need to be in sync to making logistics seamless and there is



loads to be done to make this successful.

Need of the hour is to reduce logistics cost and logistics optimisation."

Harish Nandan, AMTOI, emphasised, "The academia and industry have come together at NITIE, which is a good beginning. The problem with Indian logistics is that we have too many people, processes and ways of thinking. The industry specialists needs to come together, create a process as per international standards. Rather than reinventing the wheel, let's make it better."

"The Centre of Excellence should have a balanced representation from all sectors of logistics. Rather than

focusing on multiple sectors the Centre should pick one or two sectors in the logistics domain and try to excel in them," suggested Mr. Ramprasad, Editor in Chief, Maritime Gateway.





DECARBONISING SUPPLY CHAINS

Governments and the industry are ambitious to act together and demonstrate that maritime decarbonisation is possible, while unlocking new business opportunities and socioeconomic benefits for communities across the globe

BY VIJAY KURUP

he pressure in the maritime world is building up. Shipping and aviation are major emitters of carbon. If the maritime industry were a country, it would be the eight largest emitter of carbon. The Clydebank Declaration, introduced at the 26th United Nations Framework Convention on Climate Change (UNFCCC), Conference of Parties (COP 26) in Glasgow, addresses the importance of the current reality and the need for a robust interaction with all the stakeholders in the maritime industry. The clarion call is blunt and terse - Decarbonize the supply chain.

What does it entail to the Indian maritime industry? What is India's response to the COP 26 resolutions?

The signatories of the Clydebank

Declarations take into consideration the resolutions adopted in all the previous conferences on climate change and clean air. The resolutions adopted were:

- Recall the long-term temperature goal of the Paris Agreement to hold the increase in the global average temperature to well below 2°C above preindustrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.
- Note the International Maritime Organization (IMO)'s adoption of the Initial IMO Strategy on Reduction of Greenhouse Gas Emissions from Ships, Resolution MEPC.304 (72), which aims to align international shipping with the aforementioned temperature target.
- Emphasize the importance of pursuing efforts to limit the increase in the global average temperature to 1.5°C above pre-industrial levels, to have a greater chance of significantly reducing the risks and impacts of climate change on countries, in particular least developed countries and small island developing states.
- Recognize the benefits of pursuing synergies between decarbonisation

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and clean air policies in shipping, and building on existing measures related to the reduction of nollution from

and clean air policies in shipping, and building on existing measures related to the reduction of pollution from ships under the International Convention for the Prevention of Pollution from Ships (MARPOL).

- Express great concern regarding the findings from the Fourth IMO Greenhouse Gas Study 2020, which estimates that if no further action is taken, international shipping emissions are expected to represent 90% to 130% of 2008 emission levels by 2050.
- Express great concern also regarding the findings of the IPCC Working Group I contribution to the Sixth Assessment Report (2021), which states that global warming of 1.5° C and 2° C will be exceeded during the 21st century unless deep reductions in carbon dioxide (CO₂) and other greenhouse



gas (GHG) emissions occur in the coming decades, and hence, endorse the need for international shipping to keep accelerating its level of action.

- Equally recognize that a rapid transition in the coming decade to clean maritime fuels, zero-emission vessels, alternative propulsion systems, and the global availability of landside infrastructure to support these, is imperative for the transition to clean shipping.
- The signatories of this Declaration assert the need for the formation of an international coalition between ambitious governments, to act together and demonstrate that maritime decarbonisation is possible, while unlocking new business opportunities and socioeconomic benefits for communities across the globe.

The Clydebank Declaration is a voluntary participation of 22 countries. The mission statement of the declaration is to develop at least six green shipping corridors through major deep-sea routes between two or more ports by 2025 and sustainably link the world's largest ports by 2030. The name Clydebank Declaration derives from the heritage City of Glasgow and the River Clyde.

As per the annexure A of the policy paper of COP26, for the establishment of green corridors the signatories acknowledge the importance of partnerships in which:

Two or more signatories to the Declaration identify and take steps with relevant willing ports, operator(s) and others along the value chain to decarbonize a specific shared maritime route within the jurisdiction and control of a signatory.

Voluntary participation by operators is a significant element for successful green shipping corridors.

The Clydebank Declaration has clarified that all vessels transiting a green corridor would not be required to have zero emissions or to participate in the partnerships.

In supporting the establishment of green corridors, signatories recognize that fully decarbonized fuels or propulsion technologies should have the capability to not add additional GHGs to the global system through their lifecycle, including production, transport or consumption. A Greenhouse Gas is a gas that absorbs and emits heat energy that is contained in the normal light spectrum, causing the greenhouse

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effect. Gases in the atmosphere, such as carbon dioxide, trap heat similar to the glass roof of a greenhouse, which makes the earth warmer. These heat-trapping gases are called greenhouse gases.

The purpose of creating green shipping corridors, arising from partnerships between willing ports and operators, is to decarbonize specific maritime routes. Further over 200 businesses across the shipping value chain have committed to scaling down and commercializing zero-emission vessels and fuels by 2030.

Reportedly, conglomerates like Amazon, Ikea, Michelin, Unilever etc., have announced that they will only buy zero-carbon freight from 2040.

The aim of the declaration, as stated earlier, is to reduce emissions to limit global warming to less than 2 degrees centigrade above pre industrial level temperature. But what is the 'pre industrial level temperature'? The IPCC Special Report on Global Warming of 1.5°C, uses the reference period from 1850 to 1900 to represent pre-industrial temperature, which was 13.7 degrees Celsius. IPCC is an Intergovernmental Panel on Climate Change - a United Nations body for assessing the science related to climate change.

The years 1850 to 1900 is the earliest

documented period with temperature globally collated and is used as an approximation of pre- industrial temperatures. The current global average surface temperature is then compared with the pre-industrial age temperature to see the extent of rise or fall in temperature. It has been observed that the rise in temperature since the preindustrial era has been roughly 1 degrees Celsius.

The phrase 1.5 degrees Celsius were being bandied about in all global climate conferences? What is the significance of this number? If the temperature were to rise by 1.5 degrees Celsius, it could cause irremediable destruction of coral reefs worldwide. It was estimated that 70 to 90% of the coral reefs would be destroyed. If the temperature were to rise by 2 degrees Celsius, 99% of the coral reefs would be lost. The Declaration signatories are committed to address climate change and emphasized the critical need of limiting the increase in the global average temperature to 1.5°C above preindustrial levels.

Capt Deepak Tewari, Chairman, Container Shipping Lines Association (India), said, "the rise in sea levels will have an important climate change impact for ports. Higher sea levels and

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larger waves could cause flooding and affect mooring and quayside operations in ports, including increased loading times and delays to ships arriving or departing."

The year 2020 saw an unprecedented number of containers falling overboard container ships, over 3000 in all. In 2021, 1000 containers have fallen overboard to date. One of the reasons attributed is due to increased frequency of high intensity storms. Storms are getting stronger and more frequent. The heights of the waves are much higher now. All this is directly attributed to warmer ocean temperatures in the Pacific Ocean. Climate change is creating warmer oceans. It is not only creating more storms, but is increasingly becoming stronger and more powerful.

Nineteen nations have committed to the Clydebank Declaration at COP26, this November, pledging, interalia, the establishment of green shipping corridors - zero emission maritime route between two or more ports. The three possible green shipping corridors that are being developed are the Asia - Europe container trade, the Korea-Japan-US pure car carrier (PCC) corridor, and the Australia – Japan iron ore corridor. China and India are not signatories to this declaration as yet. However Capt. Tewari feels that India is strategically located on the Asia-Europe shipping route and as and when the green corridors take shape, our ports should gear up to provide the fuels of the future to enable the ships meet their net zero carbon targets.

Though India has not signed the Clydebank Declaration, the Prime Minister Narendra Modi has committed to a graded five-point response towards stemming the global rise in temperatures. He has termed them as 'Panchamrit', to deal with this challenge.

First- India will take its non-fossil energy capacity to 500 GW by 2030.

Second- India will meet 50 percent of its energy requirements from renewable energy by 2030.

Third- India will reduce the total projected carbon emissions by one billion tonnes from now till 2030.

Fourth- By 2030, India will reduce the carbon intensity of its economy by less than 45 percent. And lastly by the year 2070, India will achieve the target of Net Zero.

The Prime Minister Narender Modi has, interalia, stated that India will take its non-fossil energy capacity to 500 GW by year 2030. And will reduce the total projected carbon emissions by one billion tonnes from now till 2030. Further by 2030, India will reduce the carbon intensity of its economy by less than 45 percent and by the year 2070, India will achieve the target of Net Zero.

Decarbonisation will not be without a hike in logistics costs. Capt Tewari said, " It must be clearly understood that decarbonising the world fleet is not just an issue for the shipping Industry. Most major economies and global businesses have all made pledges to reach net-zero emissions, but they won't be able to do it unless the shipping industry gets their first. That will mean paying more to move their goods around the world."

He further added that according to a Global Maritime Forum study, decarbonising the global shipping fleet, which includes the land-based port and fuel infrastructure will cost about \$ 1.9 trillion over 20 years. Society must accept the fact that shipping costs will increase. Given the 24,000 TEUS ships are already in place, if there is a big increase in fuel price during the transition phase, that costs will be spread across the containers and result in a freight rate increase.

Which are the clean fuels? Why is it difficult to change to clean fuels? The list of clean fuels includes Ammonia, Hydrogen, LNG, Biofuels, and Methanol etc. If there are pros for these gases there are cons too, making its adoption difficult. Some of these gases have low energy content, as compared to traditional fuel gases and therefore require larger storage capacity. Liquefied Hydrogen, makes for a powerful fuel, requires a -253 degrees centigrade environment for storage, which exponentially increases its handling costs. LNG is not carbon neutral, but emits less carbon content in comparison to traditional fuels. The technology is there to build vessels that run on clean fuel. The main stumbling blocks are the availability and cost of alternative fuels.

Conforming to the Clydebank Declaration would entail infrastructural The Clydebank Declaration is a participation of 22 countries to develop at least six green shipping corridors through major deep-sea routes between two or more ports by 2025 and sustainably link the world's largest ports by 2030.

changes in the port. Says Captain Tewari, "Rise in sea levels will be an important climate change impact for ports. Higher sea levels and larger waves could cause flooding and affect mooring and quayside operations in ports, including increased loading times and delays to ships arriving or departing."

"Extreme events, such as storm surges, may lead to breakwaters being overtopped or damaged, and sediment being swept into the approach channels making them unnavigable. Different patterns of storminess, heavy rainfall, river discharge and wave direction could also change the way sediment moves, requiring changes to existing maintenance dredging strategies," Capt Tewari warned.

In a sign of growing awareness of the pernicious influence of climate change, six European investing firms involved in capital financing for the dry bulk industry were reportedly mulling to reduce their exposure to vessels that transport coal. The pressure is from the insurance companies that use the Environmental, Social, and Governance (ESG) criterion to screen companies. ESG is the new norm that companies are now adopting, before it makes any investments. Transportation of coal accounts for almost 30% of cargo volume. The port in Antwerp and the Peel Port in Scotland Ports too are shying away from handling coal. Shipping companies that transport the world's coal are under scrutiny of financial institutions also who are now beginning to look for vessels conforming to regulations.

"Ports need to plan and implement adaptation measures to increase the resilience of operations and of infrastructure, and to reduce their vulnerability to the effects of climate change," said Capt Tewari. He emphasises, "Plans need to be sitespecific – each port or harbour has its own meteorological conditions, orientation, coastline and sediment regime."

Capt Tewari pointed out the importance of the synergies between the Government and the private sector in this mission. He said that Governments played a key role in supporting and regulating maritime activities, but the business of shipping cargo was primarily managed by private enterprises across the globe. In response to IMO 2020 low Sulphur emission norms, shipping Lines had already embarked on a massive journey in adopting cleaner and alternative forms of fuel for their ships and that journey would continue in keeping with the global move towards cleaner energy.

In order to assess the progress made, all these efforts need to be measured and tabulated. Inspection agencies like the Bureau Veritas, would have a pivotal part to play in charting and verifying the progress. All this calls for transparency by the various stakeholders in the supply chain.

The path ahead is carved in stone. There cannot be any wavering of focus. The end result would be sacrosanct, if achieved. There is a growing awareness to move away from fossil fuels. We have not as yet transgressed ourselves to the point of no return. But the question remains - would the efforts be enough? How committed would be the nations in implementing their promises? There are still many miles to go and promises to be kept. The goals are doubtless ambitious, but achievable. Moving forward, the agenda now is to swim together and not sink together. \clubsuit





n August 23, 2021, the Government of India declared the National Asset Monetization Pipeline (NAMP) for the next four years. The objective of the Asset Monetisation programme is to unlock the value of investments in public sector assets by tapping private sector capital and efficiencies through investment in brownfield projects. What would be the modus operandi? Would it attract the private sector?

The NAMP is expected to bring in revenue estimated to be Rs 6 lakh crores over the next 4 financial years till the year 2025. The objective of this exercise for the government is to ensure that all the underutilised assets in these sectors get utilised and the government gets revenue out of it. Asset monetisation is a globally employed means of increasing revenue stream for the government. This entails a limited period transfer of performing assets and reinvesting it in other assets or projects that deliver improved or additional benefits.

GENERATING TRUE VALUE FROM CAPITAL ASSETS

The NAMP is aimed at creating a systematic and transparent mechanism for public authorities to cash on capital assets while involving and monitoring the private players

BY VIJAY KURUP

Under the Union Budget 2021-22, Monetization of Assets has been identified as an essential feature for sustainable infrastructure financing in the country. In pursuance of this objective, the Budget created a conduit for investment by creating the National Monetisation Pipeline (NMP). The NMP has earmarked various brownfield infrastructure assets across a wide spectrum of critical sectors, such as, supply chain, power, telecom, and oil & gas.

The brownfield projects are those, which have already been built up. They are derisked assets and provide stable revenue streams. These are assets, which belong to the government. These assets require more investments for more productive utilization and in the



process generate more revenue for the government. In this way the government intends to leverage the expertise and the technological edge of the private sector for generating revenue for itself.

The Finance Minister (FM) had clarified that the land was not under consideration. The land would remain with the government. It was only the brownfield assets where investment has already been made that would be up for investment. Those assets have been selected which were languishing for want of being utilised efficiently or were remaining under utilised. Further the FM made it explicitly clear that the asset will not change hands. The ownership of the asset will remain with the government.

The investment opportunity is also extended to global investors who would be interested in coming to India and investing in these built up units. The units up for investments are all central government owned units. The state government has not been involved as yet.

These units would be handed back to the government after a defined period of 25 to 30 years. The FM has assured that all contractual partnerships that the government will enter into with the private players in executing this pipeline would be with full KPIs and performance standards. The KPIs and the performance standards would have to be complied with for getting through the monetisation pipeline. For the entire project to succeed, transparency would be sine qua non. A robust asset pipeline, not only enables investors to plan their fund raisings and investment timelines, but also helps asset owners to track and scan the performance of assets.

In the first Financial Year 21-22, the government was expecting Rs 88000 crores worth of revenue. The Government has laid considerable emphasis on the National Monetisation Plan, with yearly targets assigned to the various ministries and departments. The progress would be reviewed monthly by an empowered committee and would be monitored continuously through a dashboard.

The government has identified a range of public private partnership models for monetisation. These include Operate Maintain Transfer (OMT), Toll Operate Transfer (TOT), Operations Maintenance and Development (OMD), and Rehabilitate Operate Maintain and Transfer.

OMT and TOT have already been deployed in the road sector and OMD in the airport sector. National Highway Authority of India (NHAI) has already raised Rs 17000 crores from the TOT model. The government has kept the option of infrastructure investment trusts and real estate investment trusts open for the investors so that these vehicles can pool capital from the various investor classes, which are typically investor based.

S.No.	Port	Total No. of Projects	FY22	FY23	FY24	FY25
1	Paradip Port	4	2			2
2	Deendayal Port (Kandla)	4	2	2		
3	JNPT (Mumbai)	3	1	2		
4	Mormugao Port	3	1	2		
5	Mumbai Port		2			
6	Shyama Prasad Mukerji Port Kolkata (Khidderpore)	4	1		1	2
7	Shyama Prasad Mukerji Port Kolkata (Haldia)	3	1	1	1	
8	Visakhapatnam Port	4	1	2	1	
9	V.O. Chidambaranar Port (formerly Tuticorin)	3	2	1		
10	New Mangalore Port	1				
	Total	31	13	10	3	5

If all goes well, the concept can be extended to Greenfield infrastructure creation.

In the logistics sector, the assets that have been thrown open for private investments are roads, rail, and major ports. Nine out of twelve major ports are open for private investments. The other assets are airports, warehouses Food Corporation of India, Central Warehousing Corporation & other agencies, Railway warehouses and goods shed.

Shipping assets worth Rs 12,828 crore involving 31 projects will be monetised over the next four years. The projects are for operational efficiency and capacity utilisation of existing port assets and creation of additional berths, mechanisation, development of oil jetty, container jetties, 0&M of container terminal. The shipping assets monetisation pipeline projects will be implemented by the Ministry of Ports, Shipping and Waterways and potential models would be by way of grant of PPP concessions.

Out of the 31 projects, 13 projects adding up to Rs 6,924 crore is expected to be awarded during FY 2022. The monetisation pipeline phasing represents the year in which a certain project is expected to be tendered out and the actual capex investment is likely to happen in phases during the initial years of the concession period.

For FY 2023 to 2025, a total of 18 projects adding up to Rs 7,168 crore, is expected to be awarded during the period. The phasing again represents the year in which certain projects are expected to be tendered out. The actual capex investment is likely to happen in phases during the concession period.

Since the role of Tariff Authority for Major Ports (TAMP) has been abridged, it would be an added incentive for asset monetisation plans for the private sector.

The ports sector has witnessed many policy initiatives over the last decade to revive Investor interest and facilitate asset recycling. Key actions include:

- 100% FDI permitted under the automatic route
- Central government has already taken multiple initiatives like Major Port Authorities Act 2021, which enables Major ports to move from a service



model to a landlord model and bring in more private sector participation to drive operational efficiency.

- Major Port Authorities Act 2021 enables Major ports to transform effectively for the future.
- The Cabinet approved an evolved framework and MCA for PPP projects in major ports in 2018 to make investments in the ports sector more attractive.

How has the private sector taken to this announcement? A senior executive with 30 plus years in international shipping, ports and terminals with a leading company in the industry and who is currently dealing with the last mile/ first mile service through digitalisation, welcomed the government initiative. He said, "Ports are a facilitator to trade. Efficient ports will bring costs down. Technology will usher in efficiency as well as transparency. Equally important, it will improve the safety standards multi fold. Indian ports are already behind the curve as compared to its more advanced contemporaries."

Further he said that infusion of technology stood a better chance through privatization though that was not a given as can be seen from those running private ports already. It is not that the government is incapable of it, however it is more challenging for the government in India to do it because it needs to be counterbalanced with job creation.

He continued, "Goes without saying that the government must reserve its right to first use in order to preserve the sovereignty of the nation should such situations demand. It also goes without saying that statutory agencies such as customs and border control must remain with the government."

He concluded by saying, "if the desire is to be a major maritime power in the region, this very desire must be defined in terms of timelines, infrastructure, technology and deliverables to the country/ trade. The definition of ports must include the approach channel, the port infrastructure and land side connectivity detailing minimum standards to cater to international tonnage.

He warned, "None of the above will make sense unless carbon emission

The NAMP is expected to bring in revenue estimated at ₹6 lakh crores over the next 4 financial years till the year 2025. In the first Financial Year 21-22, the government was expecting ₹88000 crores worth of revenue.

standards are specified through this element of the supply chain detailing dates on achieving carbon neutrality and then zero emissions."

Dr. P. R. Swarup, Director General, Construction Industry Development Council, was not particularly sanguine. Referring to similar instances where the private sector had taken over from the public sector enterprises in the logistics sector, he said that the PPP Model of Highways, and introduction of Private Railways, is two such examples, where the results have not been encouraging.

On the question regarding the expertise to upgrade and bring it to world standards, he said that we have had little or no experience, and most techniques were the borrowed ideas, without taking in cognisance the holistic picture. He was doubtful that this move would trigger augmentation and modernisation of assets.

Indian Railways manages 1,246 railway owned goods sheds. There is a proposal to monetise these 265 assets in major locations in and around major urban centres by inviting private sector participation in augmentation and Operation and Management of these good sheds as private freight terminals. A capex of about Rs. 21 crore per good shed has been derived and considered for arriving at monetisation value for the 265 good sheds. The monetization has been phased out over the NMP period starting with 75 good sheds in FY 23.

A source from the industry who

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did not wish to be identified said that in his opinion this "reach out by the government" would succeed. He said that since these sheds would be spread out in convenient areas, it would definitely help the operators. However, there were some riders to his guarded optimism. Currently, he said that the railway land couldn't be leased out for more than 5 years. This needs to be extended to at least 25 to 30 years for the project to be viable.

Secondly the license fee for railway land, which is currently about 6% of the circle rate, needs to be reduced to at least 3%. Thirdly, since these are public goods shed, there should be a restriction in the type of goods coming in. A private operator will not have the bandwidth to handle multiple types of goods coming into the shed. Clarifications are required here, he said.

The Dedicated Freight Corridor is expected to be fully commissioned by June 2022. Once commissioned, Dedicated Freight Corridor Corporation of India (DFCCIL) will monetise approximately 673 km of track starting from FY 2024 onwards.

The government's aim is that the enhanced capex investor spending and the world-class infrastructure will have a multiplier effect on growth and employment as well as revival of credit flow. The private investment will come into maintaining these assets and by optimally utilising it, will generate greater value. It will unlock resources for the economy, which is what the government was expecting.

By inviting the private sector, the government was looking to prize open the economy that would give it liquidity to move forward.

Availability of a sustained and robust asset pipeline has been cited as a key concern by investors to the Government at various forums. A well laid out pipeline gives a comprehensive view to investors and developers of brown-field investment avenues in Infrastructure. The Finance Minister said that the NMP is aimed at creating a systematic and transparent mechanism for public authorities to monitor the initiatives and for investors to plan their future activities The NMP document would be a critical step towards making India's Infrastructure truly world class.



n 2021-22 (up to Sep-2021) Indian trade across its land borders was worth Rs 95,488 crores through its nine Integrated Check Points (ICPs). The cross border trade with the neighboring countries has been on the increase. The LPAI was given a clear mandate by the Ministry of Home Affairs, to provide state-of-the art infrastructure to facilitate trade and travel. Do these ICPs provide an efficient trading environment? Is the transit of goods through these points smooth without hindrance?

LPAI was established in 2012. Prior to that, due to inadequate infrastructure at designated exit/entry border checkpoints, being mired in long queues has often been attributed to delays and major hindrances to regional trade. Support facilities like warehouses, parking lots, banks, hotels, etc., have been either inadequate or spaced far out leading to inordinate delays in clearance of cargo. The regulatory bodies too were not easily accessible. Even if it were,

IMPROVE LOGISTICS INFRASTRUCTURE

Cross border trade with Southeast Asian neighbors is on the rise, improvement of infrastructure at ICPs will reduce time and cost for movement of trade

BY VIJAY KURUP

there was no single agency responsible to coordinate the functioning of various Government authorities and service providers.

To ease passage of trade between the neighboring countries ICPs were created that housed within its perimeter regulatory bodies and other facilities such as warehouses, examination sheds, parking bays, weighbridges etc. at designated entry and exit points for prompt cross-border movement of persons, goods and vehicles.

LPAI is in the process of developing a Land Port Management System (LPMS) at its ICPs that would greatly ease documentation and at the same time reduce the costs of ICP operations for traders. The main features of LPMS would be:

- Single Registration request for all stakeholders. Document Upload and Alert & Communication.
- Slot Management Advance planning for ICP Slot booking on the basis of resource availability. Vehicle Dwell Time Forecast.
- Gate Operations Provision to capture shipment details, transport details and gate in/ out transactions. Provisions for Integrating with Full Body Truck Scanners





- Customs Filing Provisions to create Shipping Bill and BOE files with auto submit to the customs system. Online filing of customs clearance and EXIM Manifest with accuracy as per ICEGATE format.
- The complex should house regulatory agencies, banks, Foreign Exchange Bureau, tourist information center, plant quarantine etc.
- CCTV surveillance, scanning equipment.

Ajeet Kumar Singh Director operations, Land Port Authority of India, speaking to Maritime Gateway said that the installation of LPMS for the various ICPs is under consideration. The full body truck scanners are currently installed only at the Attari ICP. The scanners too are under proposal to be installed in the remaining ICPs.

The details of the various ICPs are as under.

ICP Attari

This was the first ICP at Attari, Amritsar, Punjab along the border with Pakistan.

The ICP serves as an important port for importing goods from Afghanistan into India.The ICP has direct access to National Highway-I. Trade details over the years are as under.

Year	Total Trade (Crores) Rs.
2017-18	4,148.15
2018-19	4,370.78
2019-20	2,772.04
2020-21	2,639.95
2021-22	1,180.54
(upto Sep -2	2021)

ICP Agartala

It is located at the Agartala-Akhaura border, in the state of Tripura, point along the border with Bangladesh. Trade details over the years are as under.

Year	Total Trade (Crores)
2017-18	235.00
2018-19	356.00
2019-20	579.00
2020-21	581.36
2021-22	345.76
(upto Sep-202	1)

ICP Petrapole

It is the largest land port in South Asia, located along the border with Bangladesh and is 80 kms from Kolkata, West Bengal.

Year Total	Trade (Crores)
2017-18	18,799.00
2018-19 2019-20	21,380.00 20,605.00
2020-21	15,771.00
2021-22	12,773.00
(upto Sep-20	021)

ICP Raxaul

ICP Raxaul is located along the border with Nepal, located at a distance of about 230 kms from the city of Patna, Bihar. Products worth over Rs 39.5 billion were exported in the first quarter of the current fiscal year as opposed to a little over ₹12.4 billion in the same period of the previous fiscal year.

Year	Total Trade (Crores)	

2018-19	25,200.00
2019-20	24,821.00
2020-2021	22,099.00
2021-22	1,06,620
(upto Sep-20	21)

ICP Jogbani

ICP Jogbani is located along the border with Nepal, located 325 kms from Patna, Bihar.

Year	Total I	Trade (Crores) Rs.
2017	7-18	6,561.00
2018	3-19	8,518.00
2019	9-20	7,624.00
202	0-2021	7,270.00
202	1-22	5,233.00
(upt	to Sep-20	21)

ICP Moreh

ICP Moreh is located along the border with Myanmar, at a distance of about 110 kms from the city of Imphal.

Year	Total	Trad	le ((Crores) Rs.

2018-19	30.70	
2019-20	355.52	
2020-21	3.11	
2021-22 0		
(upto Sep-20	021)	

ICP Sutarkandi

ICP Sutarkandi is located along the border with Bangladesh, about 15 kms from the district Karimganj, Assam.

Year Total Trade (Crores) Rs.

2017-18	162.16
2018-19	144.10

2019-20	329.00	
2020-21	237.65	
2021-22	303.06	

ICP Srimantapur

ICP Srimantapur is located along the border with Bangladesh, at a distance of 4 kms from Sonamura Sub- Division town and 63 kms from the city of Agartala in Tripura.

Year Total	Trade (Crores) Rs.
2017-18	91.47
2018-19	96.41
2019-20	101.35
2020-21	81.72
2021-22 46.9	99
(upto Sep-2	021)

Summary of functioning ICPs

The following ICPs are under construction.

ICP Rupaidiha

It is located in the Bahraich district of Uttar Pradesh. It will be the first ICP in the state along the border with Nepal. It is located at a distance of about 185 kms from Lucknow. Target Date of Completion: April 2022.

ICP Dawki

ICP Dawki is located in the West Jantia Hills in the state of Meghalaya, along the border with Bangladesh. Iit will be the first ICP in the state and is located 84 kms from Shillong. The ICP Dawki is connected with National Highway-206 and Asian Highway-I.

ICP Banbasa

ICP Banbasa, in the state of Tripura, is located on the India-Nepal border and is connected to Mahendranagar, Sudurpashchim Pradesh in Nepal.

The ICP is located close to Asian Highway 2.

ICP Sunauli

ICP Sunauli is located in the Maharajganj district of Uttar Pradesh along the border with Nepal.

ICP Sabroom

ICP Sabroom is located in the South Tripura district along the international border with Bangladesh.





ICP Bhithamore

ICP Bhithamore is located in the Sitamarhi district of Bihar along the border with Nepal It is well connected to Janakpur, the second largest province of Nepal.

ICP Kawrpuichhuah

ICP Kawrpuichhuah is located in the Lunglei district of the state of Mizoram. It will be the first ICP in the state along the border with Bangladesh.

ICP Fulbari

ICP Fulbari is located in the Jalpaiguri district of West Bengal along the border with Bangladesh. The ICP would also be an import port for transit of Bhutanese merchandises trade with third countries. It is located near National Highway (NH)-27

ICP Panitanki

ICP Panitanki is located in the Darjeeling district of West Bengal along the border with Nepal. ICP Panitanki lies in close proximity to NH-327 and is well connected with Asian Highway (AH)-2. It is also located 4 kms from Batasi Railway Station.

ICP Jaigaon

ICP Jaigaon is located in the Alipurduar district of West Bengal along the border with Bhutan. Jaigaon is also an important port for facilitating transit of Bhutanese merchandise trade with third countries. The ICP is close to State Highway (SH)-12A and Asian Highway (AH)-48. The Hasimara Railway Station is 17.9 kms away. Due to slow clearance of cargo by the Bangladesh importers, the truckers are forced to wait up to a month with their vehicles. At any point of time there are about 500 trucks waiting at the border to pass through.

ICP Ghojadanga

The ICP is located in the North 24 Paraganas district of West Bengal along the border with Bangladesh.

Among the land ports located in West Bengal, Ghojadanga is one of the most active and important ports for trading with Bangladesh.

ICP Mahadipur

The ICP is located in the Malda district of West Bengal along the border with Bangladesh. It is among the most important land ports of West Bengal in terms of volume of trade. ICP Mahadipur is situated on the Gour Road that connects to National Highway (NH)-12 and is 13 kms from the ICP and is close to the Gour Malda Train Station.

ICP Hili

The ICP is located in the Dakshin Dinajpur district of West Bengal along the border with Bangladesh.It is located close to National Highway (NH)- 512.

ICP Changrabandha

The ICP is located in the Cooch Behar district of West Bengal along the border with Bangladesh. Changrabandha is also an important port for facilitating transit of Bhutanese merchandise trade with third countries. It is well connected by National Highway (NH)-16 and National Highway (NH)- 12A. The railway station Changrabandha Railway Station is 0.5 kms away.

There is a robust trade by road between India and its neighboring countries. But what are the challenges faced by the traders?

Kuldeep Singh, Managing Director, VSG Shipping & Logistics Pvt Ltd, who has regular shipments transiting the border by road, said that on an average his trucks are detained at the border for 30 days. The trucks are parked at a private siding where they incur truck detention charges at the rate of ₹1500 per vehicle per day. The containers are detained on the Indian side of the border due to paucity of warehousing space on the Bangladesh side. Due to slow clearance of cargo by the Bangladesh importers, the truckers are forced to wait up to a month with their vehicles. At any point of time there are about 500 trucks waiting at the border to pass through.

Since the truckers have to park their vehicles in a private parking area, where they not only have to wait for an extended period of time, but risk exposing their cargo to theft by pilferage and damage by rain. Kuldeep is of the opinion that there should be a Customs Bonded warehouse on the Indian side, where they can off load their consignment and free the vehicle, thereby avoiding paying truck detention charges. The warehouse demurrage charges for the cargo are substantially less.

In the cross border trade the ICPs play a critical role. The hallmark of an efficient ICP is revealed not only by the time and cost saved by the trader, but in the volume of shipment going through the facility. With further improvements in the offing, it is bound to ease the passage of cargo through the ICPs. These measures, however good, would be futile if the corresponding facilities at the entry point across the border does not show a proportionate improvement.



FOCUS ON SUPPLY CHAIN RESILIENCE

A normalisation of the supply chain crisis is not expected before the first half of 2022, but moving forward the modus operandi would be to continue to implement countermeasures and improve resilience

BY VIJAY KURUP

he going has been rough and the outlook bleak. Cranes on the wharf could be seen standing idle. There was no space in the yard for the vessels to offload the import containers. In the last two years, just about every link in the global supply chain was snarled into a logistical knot, creating multiple trade bottlenecks along major routes. There have been large port shutdowns, unprecedented in duration and number. The disruption has been severe and the consequences devastating.

With the pandemic spreading its tentacles, the manufacturing units were the first to stumble. Manpower shortage led to disruption of the manufacturing schedule in the early days of the pandemic in 2020. Major manufacturing centers of China, South Korea and Taiwan and giant industrial centers of Europe were hit hard by an exponential fall in production figures. The effect on production manifested itself in myriad ways. Manufacturing of computers in China fell dramatically due to the shortage of chips, which were being manufactured in Taiwan and Malaysia. Manufacturing of vehicles also slowed down. All of which had a worldwide impact. Far away in the US, mundane items such as toilet paper, straws and critical items like protective gears for doctors and medicines were in short supply. In India critical medical equipment was not available off the shelf.

In a reflex reaction, the falling production in manufacturing goods, prompted the shipping lines to scale back on its capacity. It was the first ominous sign of the compounding effect of the disruption in the supply chain to follow.

Despite the pandemic, the consumer demand for goods remained unabated.

When the demand for containers picked up, it only led to worsening of the logjam and delays, which had a domino effect, snapping the links in the supply chain across the world. Empty containers for export were suddenly in short supply.

The unflagging demand for consumer goods clogged the supply chain that reverberated along its length. The goods that were manufactured began to be cluttered up in warehouses owing to non-availability of containers. The goods that were stuffed in containers could not be shipped due to wayward vessel schedules and vessels omitting ports. The export containers that were loaded on the vessels were held up at transshipment ports. Major transshipment ports had





congestion problems, which led to imposition of congestion surcharges at the Southeast Asia ports. Quite often due overbooking of mainline vessels, the loaded containers got rolled at the transshipment ports. At times they are forced to exercise a triage of services, preferring to load containers on the higher paying routes. Some regions like the Middle East were avoided in preference to the lucrative Asia-Europe or Asia-US trade lanes.

Finally, even after passing through these gauntlets of problems, an armada of vessels was forced to remain at the anchorage at the destination. The decline in liners' vessel schedule performance has been the leitmotif in the year 2021. Vessels have been idling in major ports around the world. At one point in November, a total of 111 container ships were idling at sea around the ports of Los Angeles and Long Beach, waiting to dock and unload. The figure broke all previous records. Ningbo, the world's third-busiest container port, had been partially closed due to worsening conditions. Congestion was once again rearing its head in the ports of Shanghai and Hong Kong. Key ports across Asia - Xiamen, Ho Chi Minh, Port Klang, Kaohsiung, Singapore were once again caught up in a vice grip of congestion.

Girish Singla, Director RTW Logistics Pvt Ltd, said that even today there is no vessel schedule integrity. Normalcy has not returned as yet, he emphasized. "If I were to book a container today, chances are that I would be able to load the container in about 4 to 5 weeks time," he said.

Freight charges reached stratospheric levels, unprecedented in shipping history. The freight charges to any destination more than quintupled. Even at those levels of freight, the empty containers often were not available.

But the woes did not end even after the cargoes were discharged at the port. Lack of trailers, manpower and warehousing had further added to delays in delivery of cargo.

The delivery times for manufacturers worldwide declined exponentially. The global delivery time index in the month of October, declined to 34.8 points. A figure below 50 was symptomatic of extended delays in delivery of shipments.

Thus in an era where the production of a product is dependent on multiple supply chains, it is not surprising that an item weighing just about 10 gms could halt the production of any high end luxury cars. The shortage of computer chips, which comes from Taiwan, had created a global shortage of vehicles.

Amidst all this gloom and doom, the stakeholders in the logistics chain have found different ways to circumvent the upheavals in the supply chain caused by the pandemic. Coen Van Der Maarel, Managing Director, India, Sri Lanka and Maldives, Kuehne+Nagel in a mail response to Maritime Gateway said, "The current supply chain disruptions are a result of multiple factors causing a ripple effect through the industry, resulting in delays at ports across the world. While the Covid-19 pandemic has exposed vulnerabilities in global supply chains, Kuehne+Nagel has risen to the challenge by developing solutions to better manage demand and supply, and providing our customers and partners with the agility and contingency plans to keep goods moving. This includes the use of multi-modal routes, digitalisation, visibility tools - all complemented by our deep understanding and experience in the industry."

Global container shipping line Hapag Lloyd too explored inventive ways to cut through the morass of logistics obstacles. **Tim Seifert,**

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Director Corporate Communications Spokesperson for the line, explained to Maritime Gateway, "We moved capacity to high-demand trades and optimized our service network further. We re-routed cargo through alternative gateways to bypass congested ports. We bought second hand tonnage, chartered additional vessels and deployed extraloaders We have ordered new containers - over 625.000 TEU in 2020 and 2021 to satisfy demand – and increased repair and maintenance of older ones We have 12 new 23.500+ TEU vessels on order. which will add another 280,000 TEU capacity to our fleet. The first vessels will be delivered in 2023. We added workforce, IT capacity and introduced new digital solutions to improve customer satisfaction and service quality.

Vikrant Dogra, Senior Director-Strategy, Quality & Analysis-ISC, DSV had a different approach. Explaining their strategy to Maritime Gateway, he said. "In DSV, we have tried to mitigate the impact of the disruptions by ensuring that there was a core group of employees that continued to attend office with all safety precautions met through this period. This included our field staff as well as our customs clearance teams. And most of the time the complete senior management was also physically present in their respective offices. We were probably one of the few forwarders, local and MNC, who had a physical presence in their offices across the country.

Shubhendu Das, Managing Director of Hellmann India, focused on creating a high-level response team to handle contingencies. He said, "Strict WHO protocols were maintained. All employees were covered by insurance for Covid. Further they focused on bringing in flexibility in their working environment. The employees were given the option to work from home and were required to come to the office only when it was essential."

Coen Van Der Maarel responded by saying that their customers were utilising a combination of sea and air transport options to keep their goods moving, and tapping on their seaexplorer platform to visualise the best routes, and optimise their approach.

Dogra said, To provide a certain amount of predictability to our customer's supply chains, it is imperative for us to have allocations and BSAs with all our key carriers. During the pandemic, our customers appreciated the fact that we had the ability to hold certain allocations with our carrier partners, which provided a certain amount of predictability to the movement of their shipments. This approach will be a key point for us going forward.

Going forward what would be the modus operandi in terms of an insurance against similar unexpected contingencies? Coen Van Der 13 Maarel was of the opinion, "Through working with our customers and partners to overcome these new challenges, we have learnt the importance of long-term partnerships with other players in the industry to foster a strong, resilient and sustainable network to keep goods moving. Improving infrastructure and technology to mitigate and safeguard against newfound vulnerabilities is important, so that the industry as a whole continues to grow, improve efficiency, and weather further disruptions or delays."

Tim felt that, in a globally networked world economy, they also needed to be well prepared to react quickly and flexibly to developments like this. He said, "Business continuity management (BCM), for example, helps us to do this, as do teams that can be activated quickly in the event of emergencies or critical issues, analyse the situation and decide to what extent our business or fleet operations need to be adjusted. Customer proximity and transparency are of utmost importance. Digital solutions are more important than ever and will be further developed. Our seafarers are the backbone of global shipping - we are doing everything we can to bring some normality back into their lives as quickly as possible."

Before the crisis, DSV had been investing heavily on 'myDSV' (their tracking tool). Therefore, it was easy for them to provide customers tools, which gave their customers visibility to their shipments as well as a feeling of control. Pre-pandemic, their customers



were averse to using their trace and trace tools, expecting DSV to provide them with daily manual DSRs. The unpredictability during the crisis haD made their customers realise the usefulness of those tools, and they were hoping to be able to build on that trend.

Through this pandemic period, Das realized that the supply chain at both international and national level lacked resilience, resulting in a huge vacuum in demand and supply. He also came to realize the importance of having liquidity, the ready availability of which "enabled one to go that extra mile". It was necessary to have strong collaborations with partners, be it a shipping line, CFS operators etc. "Gather trusted partners who would stand with you during good times and not so good times," he emphasized.

"In Hellmann, digital transformation was always in the process," Das Said. "But the pandemic made us expedite the transformation. "We have already started investments in AI, IOT, robotics and block chain." Further, he said, "our operating models are more agile and flexible."





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