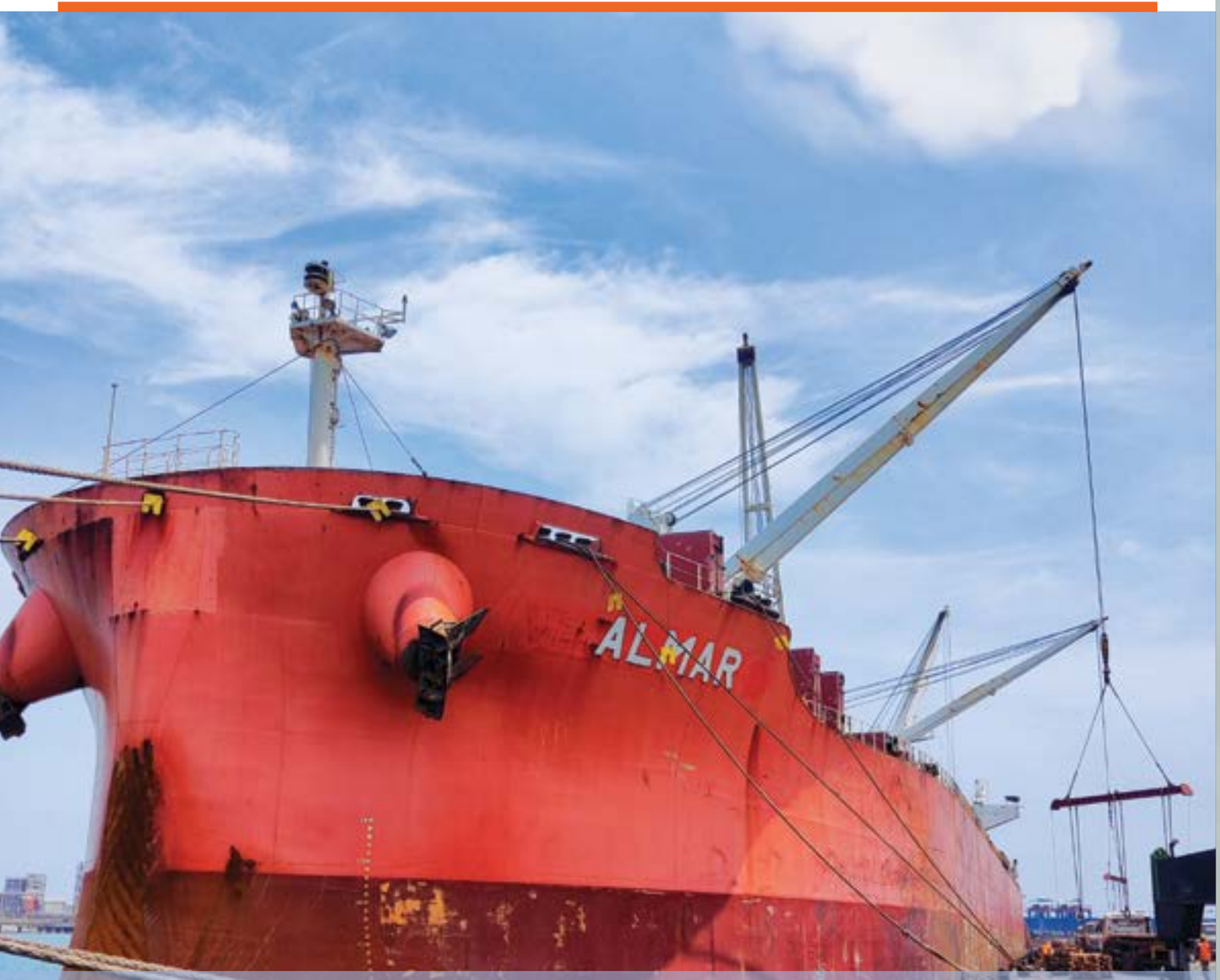
J. M. BAXI GROUP

TIDINGS

ISSUE XXXIV

JULY - SEPTEMBER 2021



July - September 2021

Newsletter Issue XXXIV

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J. M. BAXI GROUP

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M. V. ALMAR berthed at Paradip International Cargo Terminal, for Loading Steel Cargo Plates

* All maps are for representation purpose only

J M BAXI GROUP

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From the Quarter Deck

Dear Friends and Colleagues, It is with a deep sense of distress and despair that I begin this issue of the Quarter Deck. India has suffered and faced a virulent second wave of COVID-19 pandemic causing fatalities, infections and lockdowns but is now seeing a gradual decline in cases as well as fatalities. Our feelings of distress and despair are further deepened because there have been many infections and fatalities in our group of companies. These have affected our employees and also their dependent family members. I am sure each one of you will join me in condoling with the family members and in offering prayers for eternal peace to the departed souls.

Deceased Colleagues

Gajinder Singh Sahni, IAS(Retd.) (Consultant), Shekhar Kumar (CMT), Kishor Shegade and Dhawal Lalan (Diabos) Pravin Patil(J. M. Baxi & Co.), Parmod Kumar, Prabhat Gupta and Rohit Agarwal (ICTRIPL)

Deceased Dependents of J M BAXI GROUP employees

Aryacom: Hriday Narayan Mishra (Father of Shailendra Mishra), Asha Mahesh Shrivastav(Mother of Smita Shrivastav), Suneet Sharma(Spouse of Anju Sharma) and Saroj Kumar Upadhya(Father of Madhur Upadhya). **BOXCO Logistics Infratrans:** Sunita Raut(Mother of Paresh Sunil Raut and Savithri(Spouse of Srinivasa Rao), **Diabos:** Manjula Bai(Mother of Vimalnath C K), **ICTIPL**: Snehal V Ghugardhare(Spouse of Vinod Ghugardhare), Alex Fernandes (Father of Flavia Fernandes), Suvarna Darekar(Mother of Samir Darekar), **J. M. Baxi & Co.:** Ganpat Parab(Father of Anand Parab), Shubhangi Parab(Mother of Anand Parab), Chari(Mother of Praveena Chari), Narasimharao(Father of Venkatseetharaman), Anjali Mukherjee(Mother of Sumanta Mukherjee) and Ratnakar Acharya(Father of Prakash Acharya), **KICT:** Madhuri Devi(Mother of Sarvendra Kumar), **PICT:** Koppala LaxmiNarayana(Father of Koppala Ravi), **Portall:** Mohan Shah(Father of Sanket Shah), **ULSS:** Geeta R. Katira(Mother of Kumkum Lalwani), R. Vimala(Mother of R. Ganesh Sundaram), Mahohar Pawar(Father of Rina Chavan),**VCTPL:** K.Trimurthulu(Father of K.Nagendra Rao), D.Chittithalli(Mother of D.Kalyan Babu), R.Chinnammalu (Mother of R. Ramu), Sistla Narayana Murthy(Father of Sistla LaxmiNarayan Murthy) and J Chinna Rao(Father of J V Prasad).

We, at the J M BAXI GROUP, since the beginning of this pandemic in March last year, have been at the forefront of keeping the critical and crucial supply and transport chain going, as it forms the foundation of any economy, including the movement of life-saving medicines. No employee of the J M BAXI GROUP has shirked their responsibilities, as everyone has helped and assisted each other, as well as our principals, customers and clients. Our group of companies and each one of our employees have endeavoured to go above and beyond the call of duty. We have all tried to contribute substantially towards the emergency necessities. The J M BAXI GROUP of companies has spent a significant amount of money, for example by buying 1100 oxygen cylinders for the desperate and deprived population at large. We sincerely hope that the vaccination programme rolls out expeditiously and that our battle with COVID-19 will gain some traction. The only silver lining this time around has been that the doctors and the people sort of know what to expect and are trying to cope accordingly.

Translating the above into business and economics terms suggests, therefore, that there will be a delayed recovery. So, those who predicted that it would be a W-shaped recovery may well prove to be correct. India had to go into a lockdown last year, and 2021 seems to be mirroring the events of 2020.

For shipping, the last three months have been dramatic, to say the least. The headlines from the last week of March right up to April were completely dedicated to the grounding of the vessel Ever Given in

the Suez Canal. To make the drama even more exciting, the ship is one of the largest container vessels in the world. With a length of 400 m, it blocked the Suez Canal. This crisis came on top of an ongoing lack of ship slots and a lack of containers for the trade in all the major trade routes. Several of the largest container ports in the world remained congested and some ports, especially, on the west coast of America, are seeing historic volumes of container trade, resulting in berthing delays of up to and beyond 10 days. One can well imagine what such delays are doing to sailing schedules and thereby to the rotation of ships and the actual carrying capacity of ships across their trade groups. All these events have contributed to skyrocketing charter rates for container ships, a continued skyrocketing of freight rates and a continued shortage of shipping slots and containers. Thus, each of the top 10 shipping companies have reported profits not only never seen before but also never dreamt of before.

It is expected that sooner, rather than later, orders for new ships will be placed, which should see something of a downward correction of freight rates. One of the interesting and encouraging trends has been the initiative to build ships running on newer fuels. To combat climate change, governments in various countries are aiming for zero-carbon footprints and are, therefore, moving away almost entirely from fossil fuels. So, several of the new ships will be powered by LNG and a few shipping companies are also working on ammonia, hydrogen and maybe, even methane or methanol powered ships.

The bulk carrier market has also seen a continued firming up of rates. Once

From the Quarter Deck

again, there are several reasons for this, one of the main ones being the geopolitical tiff between China and Australia. Some of the commodities that China used to buy from Australia have been exported instead to South America and Africa, resulting in longer voyage times and therefore, more ships.

In the last few months, the tanker market has been the most affected. There has been a downward trend for rates as well as cargo volumes. With the pandemic affecting a large percentage of the world, any correction seems some time away. Thankfully, the gas carrier markets for both LNG and LPG remain in positive territory. The oil and gas exploration sector remains affected and the deployment of specialised craft remains under stress.

The India Meteorological Department has reported that the coming monsoons should be normal, and if that is so, then once again India can expect agricultural production to be healthy. As we all know, agriculture contributes almost 17% of India's GDP and employs 65% of its population. It is also interesting to note that last year, exports of agricultural produce, and processed foods were substantial (approximately US$35 billion). Despite these difficult times, the J M BAXI GROUP and each of our constituent activities, such as agencies and services, logistics and terminals, together have seen a performance that can only be described as praiseworthy.

In the agency and service space, we have been able to prove to our principals and customers that, despite these difficult times of shortages, we always try to deliver. On the logistics side, once again, despite the challenges, we have been working closely with our clients while preparing for better days to come. On the terminals side, fortunately, we have seen our volumes hold at KICT in Kandla, RICT in Rozi, MICT-1 and MICT-2 at JNPT, PICT in Paradip, HICT in Haldia, DICT in Delhi and VCT in Vizag. The good and exciting news is that the first 100 m of our VCT expansion project have been built, commissioned and used. KICT has also ordered new equipment to enhance the capacity of our facility.

Visakha Container Terminal

One of the significant achievements of the logistics division in the last month has been the transportation and forwarding of super heavy-lift packages exceeding 900 metric tonnes each. In time to come, capital expenditure and new projects will begin to roll out, increasing the demand for our specialised services. It is also my great pleasure to report that our incubating company, Arya Water Technologies, has made solid

Super Heavy-Lift Packages 900 Metric Tonnes

progress by implementing a creative and low-cost solution for city sewage and wastewater treatment. In Lonavala, Arya Water has installed six sewage and wastewater treatment plants in various parts of this small city. This solution, if adopted across India, would not only reduce treatment costs but also supply processed water for non-drinking uses. Such micro-solutions do not require large holding tanks, thereby releasing scarce land for uses other than water treatment.

Arya Water Sewage & Wasterwater Treatment

In continuation of our previous reports from the Quarter Deck, due to the ongoing pandemic and the second wave, the privatisations of the Shipping Corporation of India and the Container Corporation of India are yet to find traction. With the fiscal challenges that will continually crop up, these ambitious privatisation programmes will eventually gather steam.

The areas that seem to be promising and exciting for the future are technology and digitisation. After a long period of assessment, Portall was selected to implement the much-awaited National Logistics Portal (NLP) (Marine). The efficient and expeditious implementation of this platform would be a unique game changer for our country. Just as PCS has propelled India into a very select list of countries, the implementation of the NLP would place India in a better position globally.

I conclude this issue of the Quarter Deck first with a message for each of you. One sure cure of COVID-19 is prevention, which is possible only through alertness and extreme care. Second, get vaccinated as soon as possible. Reach out to our pan-India helplines and make every effort to get you and your family inoculated. We all will need to work together to achieve this, and we need to help each other. Despite these difficult times, we remain hopeful and confident of the future, especially because of our teamwork, resilience and robustness ■

Be safe, be healthy,

Krishna B. Kotak
Chairman - J M BAXI GROUP

Infrastructure

VCT The Jewel On The East Coast Of INDIA

Visakha Container Terminal (VCT), located on the centre of India's east coast and closest to the Malacca Straits, is an ideal gateway for container traffic, with a unique hinterland covering a radius of 750 km from eight states – Andhra Pradesh, Telangana, Chhattisgarh, Odisha, Maharashtra, Jharkhand, Madhya Pradesh and West Bengal.

VCT is blessed with a natural depth of 16 meters alongside (deepest in the country) and state of the art container-handling infrastructure, including post Panamax STS cranes, latest NAVIS SPARCS N 4 software, more than 350 reefer plug points, adequate power back up, two full-length rail sidings, and it operates in a fully computerised environment. The Navis – N4 Terminal Operating System (TOS) has moved a step further and is completely integrated with the SAP system.

Equipment	Current Count
RMQC	6
RTGC	10
Reach Stacker	5
Forklift	3
Tractor Trailer	30
Reefer Points	350
Berth Length	**450 m**

The terminal has two full-length on-dock rail sidings, which are operational 24/7. VCT had the privilege to handle rakes from Delhi, Nagpur in the past; however, the product did not continue for long due to implementation of the railways scheme route rationalisation, which has now been removed. The rail volumes at the terminal picked up the pace from the year 2014 with the conversion of Raipur-based cargo. The terminal has witnessed huge growth in rake handling, from four rakes a month to as high as 60 rakes a month now. Currently, VCT is providing services to major aluminium and steel players in Odisha. Furthermore, the terminal also handled Nepal-bound rakes during the years 2017–2019, following which CONCOR decided to move it from its MMLP. International Cargo Terminal (ICT), under the aegis of J M BAXI GROUP, deployed its own rakes on the east coast of India, connecting VCT to the hinterland in order to support the trade and cater for the prevailing demand. The terminal has well-established rail and road connectivity to the hinterland, thereby providing smooth access for cargo movement to the local hinterland and ICDs at NCR, Nagpur, Hyderabad, Raipur, and Kanpur besides Nepal. Also, VCT is accredited with ISO 9001:2015, ISO 14001:2015, OHSAS 18001: 2007, ISO 28000:2007, ISO / IEC 27001:2013 and has been conferred AEO status by Customs.

VCT is gradually evolving as a regional transshipment hub in the Bay of Bengal; containers from Kolkata, Haldia, Paradip, Kakinada, Chittagong and Yangon could get transhipped here. VCT operations started from June 2003 with only feeder vessels that plied between Vizag–Singapore and Colombo, while the local volumes at the terminal grew at a steady pace.

The transhipment volumes then commenced with the mainline services that started calling at the terminal, thereby providing the much-sought global connectivity from Visakhapatnam. VCT thus became the local transhipment hub primarily catering to Kolkata, which is a riverine port.

Keeping this growth in view, Visakhapatnam Port was identified in the National Maritime Agenda 2010:2020 to be developed as a transhipment hub. VCT witnessed a surge in transhipment volumes up to 2014; it slowed down before again picking up during the FY 2019 and 2020. However, the full potential of transhipment volumes is yet to be realised. There is huge opportunity for Visakhapatnam to become the regional transhipment hub. With the continuous growth in transhipment volumes and with patronage from various lines, feeder operators and NVOCCs, the growth rate is expected to rise further.

In terms of service profile and sectoral coverage VCT has three mainline services, namely FME, CHX and MDM services towards the eastern sea lane, which feature major mainline operators such as Maersk, Cosco, CMA-APL, Wan Hai, RCL, KMTC, TSL and feeder service providers such as Feedertech and BTL that cater to volumes towards South East Asia and the Far East. To the Arabian Gulf, Evergreen and Global Feeders operate the CCG service, while the CVK service of MSC connects VCT to Colombo. The IEX service connects the terminal to the Mediterranean and Europe region directly, with the participation of major lines like Hapag Lloyd, Cosco, OOCL, YML and ONE. In terms of connectivity for Indian coastal services, Shreyas and Sima Marine link VCT to Kolkata and Haldia, along with the Cochin and Kandla regions. The latest development is the direct service to the Mediterranean and Europe, which will also bring connectivity with Africa and the Americas from VCT, thereby making VCT a terminal with truly global coverage.

Infrastructure

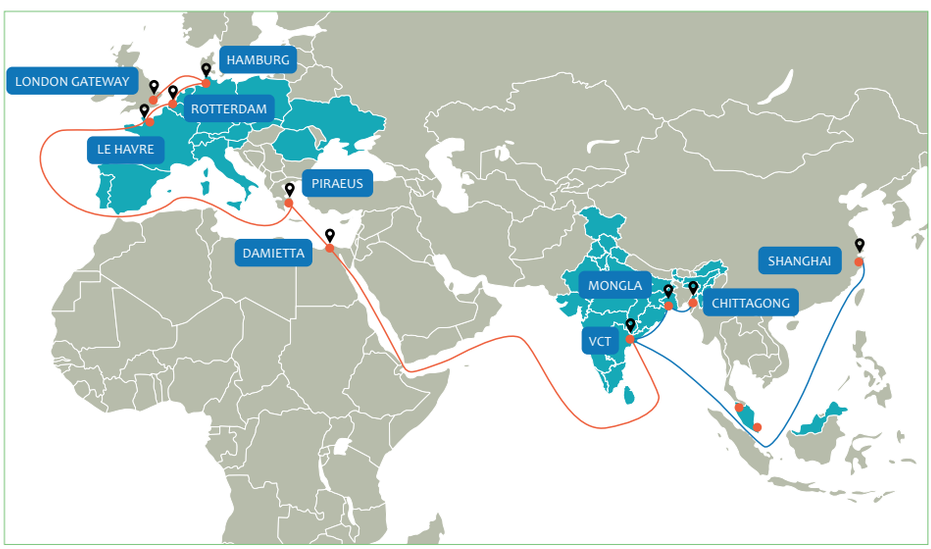
With best proximity to the feeder ports expanding up to Chittagong and Yangon complemented by a well-established feeder network (work in progress) VCT is excitingly poised to become the preferred regional transhipment hub on the east coast of India. The commercial benefits (discounts on vessel-related charges) offered by Visakhapatnam Port Trust makes the product even more attractive, sustainable and competitive in the long run, by being the 'Gateway to the East' blessed with burgeoning local hinterland and ever-increasing rail traffic.

Besides the commercial advantage offered by VCT for transhipment, the operational parameters justifying the transhipment are depicted in the tables below.

Eighteen years of excellence have passed for VCT since its inception, with many challenges and successes. Understanding the COVID-19 situation , the global pandemic, VCT immediately leapt into action to ensure customers' requirements were met, with communication continuing through phones, mails, messages, WhatsApp etc. Moreover, meetings with the trade were conducted through virtual platforms. Likewise, terminal staff were also asked to work in rotational shifts to eliminate man–man interface, while many others worked from home. VCT was also available 24/7 for customers to give them the best service in an uninterrupted manner. Furthermore, constant communication with local, port and other government authorities continued to broadcast information on the latest advisories.

Sea Distances From / To Kolkata		
Ports	Nautical Miles	Transit Time (in days)
Vizag	436	1.3
Krishnapatnam	707	2.1
Chennai	750	2.2

Distance (In Nautical Miles)				
Ports	VCT	KPCT	Chennai	JNPT
Chittagong	578	929	891	2160
Mongla	480	954	1022	2228
Pangaon	735	1048	1204	2317



A few of the initiatives taken at the terminal during the pandemic were as follows:

- Posters / signage placed in the terminal to spread awareness.
- Innovation – in-house hands-free sanitisers produced.
- Innovation – steam facility made in-house for sanitising personnel in the terminal.
- The support of IT platform was taken exclusively to eliminate delays in service.
- Online visitor management system – visits only on approval basis.

While the terminal ensured the safety and health of the staff consistently by following global guidelines, operations performance was handled equally efficiently.

The year 2020–2021 has been remarkable for VCT in many respects. This has included the highest monthly throughput ever achieved – over 46,000 TEUs twice in the months of June and September. There was yet another instance, the highest reefer volume handled – over 3,400 TEUs in June. Not to forget the rail-bound traffic – as much as 60 rakes were handled and volumes crossed the 9,100 TEUs mark. This was all thanks to the trade, which has been supportive as always, and our valued patrons' support. A few feathers have been added to the VCT cap, where MSC introduced its own tonnage in the month of July that plies between Visakhapatnam and Colombo connecting the Mediterranean, Europe, US and Africa.

Similarly, ICT under the aegis of J M BAXI GROUP has deployed its own rakes on the east coast of India, connecting the terminal and its hinterland, especially for Jindal Stainless Limited in Jajpur, Odisha. The maiden ICT rake moved from VCT on 24 July 2020.

Infrastructure

The operational performance has been consistent at the terminal, with improved vessel turnaround time – an average of 21 hours per vessel. The truck turnaround time has dropped below 40 minutes, thus showing greater efficiency in performance. Ship and crane productivity has also showcased growth – 10% and 5% respectively. The highest parcel size was handled on Vessel Mexico, CHX service, with an exchange of 3,770 TEUs. Interestingly, a new productivity record was established on the same vessel, with 110 moves per hour completing a total of 2,113 moves in just 19.4 hours.

The laden volumes have also increased; thus parcel size is moving up. However, there have been ups and downs in the volume. While exports have shown a positive trend, imports are yet to return to normalcy. The demand for cargo continues to be on the higher side and the requirement for container equipment is equally high too. With the induction of additional quay cranes, terminal productivity has been enhanced considerably, reducing the berth stay of the container vessels calling at VCT. This has enabled considerable savings to vessel operators, with faster turnaround of their vessels calling at VCT.

VCT has been recording year-on-year growth, with a CAGR of 22% since inception. Plans have been drawn up for further expansion as well, and the work is in full swing. The terminal will have a longer quay line (~ 850 m) for berthing container vessels and 1.3 million TEUs in capacity very soon. Given the natural advantages that this port enjoys owing to its location, access, natural assets, connectivity, and the burgeoning industry that surrounds it, VCT is expected to continue to grow at the pace that has been established over the last few years – possibly at an even higher rate.

To handle the envisaged container traffic, VCT is moving at a fast pace speed to complete the expansion of the terminal. Post-expansion, the 0.6 million TEUs capacity terminal will be enhanced to 1.3 million TEUs capacity, when the next generation of ships, with 12,000–14000 TEUs capacity to handle the largest container vessel. The separate approach road to the terminal is ready.

200 m of the 395 m quay wall is getting ready for operations shortly allowing for two vessels to be handled at the same time.

Orders have been placed for three new super post Panama quay cranes and nine e-RTGCs, which are expected to be delivered by September 2021

Equipment	Current	Upcoming
RMQC	6	3
RTGC	10	9
Reach Stacker	5	5
Tractor Trailers	30	24
Reefer	360	240
Berth Length	450 M	395 M
Depth	16 M	

Yard Reclamation Work In Progress

Agency & Services

Break Bulk A Perspective

The term 'break bulk' relates to trades where the cargoes are carried in unitised form, such as palletised, bagged, strapped, bundled, drummed, and also non-unitised general cargo such as vehicles, steel besides paper, wood, bags of cocoa, parts of wind turbines. These are all products that can be transported in a container or simply loaded in vessel holds. As the name suggests, it 'breaks' easily. To be able to lift general cargo, it is often packaged on pallets, in crates or racks. A crane or forklift truck can easily load or discharge the goods.

The major commodities for this segment are project cargo, steel, and windmill blades.

Project Cargo

While a weak demand and overcapacity conditions continue to haunt container shipping, India's growing project cargo trade is becoming a sweetener for ocean carriers operating to and from the Asian emerging market economy. In a prolonged, sluggish trade environment, ocean carriers have strategically shifted their focus to balancing their freight mix to create new revenue streams. Further, as India pumps billions into infrastructure development and accelerates domestic manufacturing efforts, ocean carriers believe the emerging market economy represents a lucrative market for all types of cargo — dry, refrigerated, and oversized.

As compared to other segments of the logistics industry in India, the break bulk segment in the past few years has seen a robust growth due to increasing volumes of exim cargoes, mainly due to enhancement in the manufacturing capacities of existing industries as well as the setting up of new industrial units, mostly export-oriented. The Indian economy, while achieving a year-on-year growth of around 7% in the past four to five years, is looking forward to growth of around 9–10% in the project cargo segment.

Transportation of project cargo requires a high level of expertise in handling due to the unique nature of the goods, as no cargo fits into a standard logistics solution; cargo with different dimensions requires a different set of equipment and infrastructure, as well as experienced personnel. The segment has emerged as a profitable business for logistics players in India and Indian ports are also readily adapting to project cargo needs. Further, India's increasing participation in turnkey projects in the Gulf and in Africa is seen as another factor propelling local demand for project cargo handling. The Government of India, for example, are investing close to $500 million in the revamp of Iran's Chabahar port; also, there has been movement of project equipment from India for the construction of the biggest oil refinery on the west coast of Africa. Besides, there is lot of movement of infrastructure materials from the Far East for the construction of the harbour sea link in the state of Maharashtra. Similarly, there are projects executed by the engineering majors L&T for IOCL where they are engaged in the manufacturing of the crude oil distilling plant at Visakhapatnam and also setting up an AVU (atmospheric and vacuum distillation unit) at Barauni. Such projects engage the movement of project materials by ships along the coast as well as to / from various countries. Industry estimates show project cargo demand in India would rise at a 17% compound annual growth, to $19 billion, by 2022.

Steel

India has become the world's second largest producer of crude steel (up from 8th spot in 2003) with 111.2 million tons (MT) by 2019. In FY20, crude steel production and finished steel production in India was 108.5 MT and 101.03 MT, respectively. During the COVID-19 pandemic, between April 2020 and January 2021, India's cumulative production of crude steel stood at 87.21 MT and finished steel at 76.04 MT. In November 2020, the Steel Authority of India Limited (SAIL) reported 7% YoY growth in crude steel production. Export and import of finished steel stood at 8.42 MT and 6.69 MT, respectively, in FY20. Export and import of finished steel stood at 8.84 MT and 3.79 MT, respectively, between April 2020 and January 2021. India's per capita consumption of steel grew at a CAGR of 4.43% from 46 kgs in FY08 to 74.10 kgs in FY20 and is growing. India surpassed Japan to become the world's second-largest steel producer and overtook the US as the second-largest consumer of steel in 2019. Moreover, capacity increased to 142.29 MT in FY20 and the figure is anticipated to rise to 300 MT by 2030–31.

With the growth opportunities in India, the demand for steel from different sectors is expected to drive this industry. Consumption of steel by India's infrastructure sector is expected to increase to 11% by FY26. Steel demand from the automotive sector is expected to increase due to rise in the demand for automobiles. The smart cities, affordable housing and industrial corridors are a few government initiatives to boost the steel industry – about 158 lakh MT of steel are likely to be consumed in the construction of houses. The Ministry of Steel plans to invest US$ 70 million in the eastern region of the country

Agency & Services

through accelerated development of the sector. The production capacity of SAIL is expected to increase from 13 MT pa to 50 MT pa in 2025, with total investment of US$ 24.88 billion. In March 2021, Arcelor Mittal Steel signed Rs 50,000 crore deal with Odisha government to set up a steel plant in the state. Companies in the steel industry are investing heavily in expanding their capacity. Major public and private companies, including Tata Steel, SAIL and JSW Steel, are expanding their production capacities.

The export of steel gives a great boost to the shipping fraternity, both in terms of agency and stevedoring besides the carriage. At present, the Indian ports facilitating such exports are majorly situated on the east coast of India, due to their proximity to the steel-integrated plants at Bhilai, Bokaro, Burnpur, Rourkela, Durgapur, Jamshedpur and Visakhapatnam; the Indian ports servicing the exports are Haldia, Dhamra, PICT (Paradip), Gangavaram and Vizag.

Windmill Blades

The other demand that is prevalent is the global renewable energy sector, a vision for clean, affordable, and sustainable energy. The Indian wind industry has been around since the 1980s. For many years it existed only in Tamil Nadu, which was also known as the windiest state. However, in the last decade it has spread to eight other states that have a substantial strong wind potential. The centre wants to buy electricity from the wind-power producers and sell it to electricity-supply companies. India, with 38.789 GW, has the fourth biggest capacity in the world, after China, the U.S. and Germany. The commercial arm of MNRE, IREDA and other financial and banking institutions has backed the industry as a stable market where there is assured offtake and no marketing challenges. The Government of India has announced a laudable renewable energy target of 175 GW by 2022, out of which 60 GW will be coming from wind power. There are many world-renowned names in this business and there is regular export of windmill blades from ports such as Tuticorin, Krishnapatnam, Chennai, and Kandla.

PTA

Chemicals/acid in the form of granules are bagged in 1.0 MT jumbo bags for sea transportation. One example of such acid is PTA (purified terephthalic acid) in granule form. PTA demand has been fuelled in recent years because of its use as a raw material for the manufacture of PET and polyester staple fibre, which are indispensable in the textile and packaging industry.

Reliance Industries Limited, Materials Chemicals and Performance Intermediaries Private Limited (MCPI), JBF and Indian Oil Corporation Limited are the major PTA producers in India. PTA supply and demand in the past five years have been dependent on the rigorously fluctuating naphtha and PX prices in the international market in the face of volatile oil and gas prices. The declining value of the Indian rupee against the US dollar has led to an increase in the costs of feedstock procurement, which is the single largest cost of PTA production.

Bulk to Break Bulk Carriage

Carriage of cargo in bulk has offered the best mode of transportation. However, it brings about severe handling losses, which happens during the multimodal transits. In order to arrest this issue, many shipments have now been shifted from bulk to bag, though handling bagged cargo also has its own challenges on board and needs careful consideration. The commodity being bagged itself has to be robust to withstand outside pressure and compression, for the bags will only hold the contents in one place and will not provide protection against external damage. Such commodities might typically be fertilisers, grain (rice, maize, wheat, etc.), minerals, ores, salt, seeds, sugar, coconut, coffee, fresh vegetables, frozen meat, and small items such as shells and raisins.

JMB – Numero Uno

JMB Group, in its role as one of the world's leading shipping agencies, has also evolved as one of the main support service providers when it involves breakbulk shipment. It has the necessary expertise and experience in handling the agency of these vessels and also the stevedoring activity in the most professional and safe way ■

Logistics

A Vessel Thruster On A Giant Plane Synchronised

Logistics

Synergy is an often repeated word. It needs a resonance amongst participants to be achieved in any measure. It also becomes a necessary requirement for success when you have a situation where a ship's thruster sees itself being transported on a giant plane, chartered for a voyage across continents, just for itself.

J Ray McDermott is engaged in executing an ONGC mega project off Kakinada on the eastern seas of India. A multitude of human, offshore, onshore, and marine assets are deployed for the execution of the contract. Arya Offshore Services Private Ltd, our marquee group company specialising in offshore-related services, are in a long-term contract with McDermott for providing various services that contribute to the smooth running of the projects. The project was threatened with costly delays – time and cost overruns, idling of expensive systems and personnel – because a thruster on one of its key vessels essential for pipelaying developed a snag. An immediate replacement was then considered critical.

Antonov Aircraft Landing In Chennai Airport

The replacement Rolls Royce thruster was arranged from Oslo, Norway and an AN 124 aircraft was chartered for transporting the same to a suitable Indian airport. The replacement operation on the vessel was to be carried out at Hindustan Shipyard Ltd, Vishakhapatnam. The nearest airport that could accommodate the AN 124 aircraft was identified as Chennai, about 800 kms by road from Vishakhapatnam. The distance between Chennai and Vishakhapatnam sea ports is about 420 nautical miles. Moreover, the thruster was a tough piece in itself, with a height of 5.2 metres and, while being strong enough to propel vessels over rough seas, had its own vulnerabilities. The propellers that cut through water have a sophisticated job to do at the cutting-edge level. The finely machined surfaces were to be kept protected at all times from even the slightest unwarranted transportation-related issues. This unique package also had its own particular lifting and securing arrangements and a strict adherence to the engineering, transportation drawings was mandatory.

Thruster Being Discharged From The Aircraft

So while Mc Dermott had Arya Offshore Services Pvt Ltd as its trusted offshore services partner, various heavy lift and logistics entities were contacted by the client to execute this critical assignment. This is when Boxco Logistics India Pvt Ltd, a sister concern of Arya Offshore, was introduced to the scene, the home port of the company.

A series of joint meetings with the clients engineering, logistics, and compliance teams was held. On its inherent strengths and presence all along the east coast, the assignment was entrusted to the Arya-Boxco team to execute. The entire hierarchy of McDermott was keeping a tab on the project on a real-time basis.

Attention to detail, practice, or simulation beforehand and close supervision are essential for these kinds of operations to go through without a hitch. It is needless to add that when you have an AN 124 aircraft involved, unwarranted issues always carry a very high cost. It was also not clear as to the mode of transportation from Chennai airport to HSL Vishakhapatnam. The parameters were obviously safety, feasibility, and timelines.

Tasks were entrusted to the respective teams. While Arya Offshore would handle the obtaining of essentiality certificates, documentation and customs clearance, Boxco Logistics was charged with arranging and qualifying appropriate material-handling equipment, transport, slings and shackles to use, strict adherence to lifting and lashing methodology as per engineering drawings, airport tarmac operations, survey and advise on road transport feasibility to nearest port and all port operations and sea fastenings, including procurement of prescribed materials along with their testing and certification.

Logistics

A trained and experienced heavy lift supervisory person was moved to Chennai from Boxco's extensive heavy lift team presence at Tuticorin to oversee the project.

The teams busied themselves in their respective roles; while the essentiality certificates for concessional imports were being processed other documentation and permissions from the airport authorities, Central Industrial Security Force (CISF), and customs for tarmac operations were being completed. Contacts were established with the airline agents and ground handlers and clear understanding of respective roles reiterated. The Boxco's head office team based at Mumbai outlined the requirements for tarmac operations, and a simulation exercise was conducted with the supervisor at site on the basis of minimum clear areas needed, crane swing movements and trailer placements. Slinging and shackle points were seen on the drawings and requirements imbibed. Minimum lashing onto the low-bed trailer alongside the aircraft and then final lashing at an area nearer the cargo sheds were studied, so that the AN 124 could be evacuated and released as soon as possible and tarmac operations kept to a minimum.

Simultaneously, a route survey with professional laser devices for measurements and clearances was undertaken from Chennai (airport to Chennai sea port in view of the many overhead constructions including bridges and metro rail lines along the way. The specific road lanes to take under some passages were also identified and noted to be used for safe transportation. The heavy lift supervisor from Boxco also liaised with McDermott's engineering team and finalised the types, standards and specifications of slings, shackles and lashing materials that were to be procured and utilised for lifting and securing of the thruster on the low-bed trailer and later also on the vessel that was to transport it from Chennai old port to the shipyard at Vishakhapatnam.

Practice makes man perfect. The simulations and discussions beforehand bore fruits on D day when the aircraft arrived. The client kept a real-time tab and the levels of stress due to the many variables were running high. However, the operations team and their supervisors were confident, having worked methodically over the previous few days to uncover and settle loose ends. Continuous contact was maintained with the airline agents and all equipment and manpower with permissions and clearances were in place and ready hours before the flight arrival. Movement to tarmac and positioning of the cranes and trailers were made as planned without delay as soon as the aircraft touched down. While waiting for the aircraft to set up its discharge mechanisms and unshackle routines, the customs clearance team approached the examining officers and kept them informed. Then, just as the cargo was discharged, the customs examination was completed and the team proceeded for customs 'out of charge'. Meanwhile the heavy lift team coordinated the slinging and lifting of the thruster from the AN 124 discharge stools onto the low-bed trailer along with other related cargo. Lashing as per provided drawings was completed and the trailers moved away, thereby relieving the AN 124 without a moment's delay.

In anticipation of the movement from the airport at night-time as permitted by the police authorities, another team worked on filing of coastal shipping documents and port permissions for the cargo. Yet another team worked with the Chennai port to obtain necessary permissions for the vessel to berth, which would eventually ferry the thruster to Hindustan Shipyard Ltd, Vishakhapatnam. The schedule was arranged for the next early morning hours. Meanwhile the heavy lift team arranged and kept ready at the port the needed onboard lashing materials and coordinated with the onboard stevedoring team and the port labour gang for early morning operations the next day. The long boom heavy crane needed to load the thruster onto the supply vessel was also alerted and the crew briefed once again about the specific requirements.

Landing of the flight	1200 hrs
Opening of the doors	1215 hrs
Unloading of cargo	1245 hrs
Customs examination	1345 hrs
Clearance completed	1515 hrs
Formalities for delivery	1600 hrs
Trailers gate out	1650 hrs
Trailers movement to Chennai port	2300 to 0600 hrs
Vessel arrived	0700 hrs
Loading completed	1030 hrs
Vessel sailed	1200 hrs

The entire operation was completed exactly as planned and practised beforehand. The thruster was securely lashed onto the vessel at Chennai port in less than 22 hours of the incoming flight's arrival. There was not a minute lost and all execution was completed without any obstructions as per the exacting technical and safety requirements of the client's engineering and compliance teams. Shortly thereafter, the teams witnessed, with satisfaction, the giant thruster, with a tough life ahead of it propelling a vessel remaining underwater, sitting in a benign manner on the last voyage of its working life as a 'passenger', while the supply vessel silently sailed away to Vishakhapatnam.

The operation was planned and supervised from Mumbai and Chennai across multiple functional teams. The teams of the sister concerns worked as one, at a hundred percent synergy on their operational strengths, to deliver a seamless project assignment for a delighted client ■

Technology

Drones

The COVID-19 crisis has fundamentally changed how and what customers buy, and is accelerating immense changes in, for example, the product-based industry.

In the face of COVID-19, Aryacom had to act quickly to optimise the company's resilience, while assessing opportunities for growth in various other sectors.

After looking at the evolving situations of markets and requirements from customers towards unmanned aerial vehicles (UAV) or drones, Aryacom started looking for partners to serve customer requirements. Aryacom looked for international OEMs and various Indian OEMs. As per the guidelines from Indian Government for made in India products, Aryacom became channel partners with Ideaforge as a reseller of a wide range of drones in June 2020. After this partnership was formed, the Aryacom team underwent 10 days of intensive training at Ideaforge's training center. Aryacom has successfully picked up multiple orders and has delivered and demonstrated them with training for the Indian Railway Protection Forces (RPF).

Drones are used across a wide range of applications by defence and homeland security agencies and enterprises. In security services, drones can identify security and terrorism-related challenges and pinpoint vulnerable areas that are prone to various risks. Drones are the modern-day force multiplier that can enhance the capabilities of security forces to contain terror and to counter the emerging challenges in defence and homeland security.

Drones have become an integral part of operations, carrying out activities such as mapping, surveying, equipment inspection, analysing difficult-to-monitor areas, project monitoring and precision agriculture activities. The deployment of drones for such operations reduces crew costs by minimising time-consuming ground observations.

Benefits Of Drones

- Conduct day and night surveillance with constant monitoring.
- Focus on objects of interest with multi-zoom capabilities.
- Integration with CCTV feed for unified view at command and control centre.
- Identify and track vehicles and individuals entering and leaving an area.
- Prevent hostile crowd build-up with regular surveillance.
- Improve situational awareness and emergency response.
- Track vehicles and individuals in real time with moving target indicator.
- Strengthen existing security framework by eliminating surveillance blind spots.

Technology

Aryacom has played a vital role in providing drone solutions and training to the RPF. To date Aryacom has sold drones to RPF Bhusawal, RPF Vishakhapatnam, and RPF Jabalpur.

The RPF uses drones for day and night surveillance of workshops, yards, and tracks to prevent theft, sabotage and pilferage. Aerial data acquisition by drones equipped with sensors can decrease the capital costs of railway projects by 12% and maintenance by 17%. Drones have been integrated with the Indian Railway Accident Relief Trains (ART) system for disaster management.

The RPF Jabalpur drone was inaugurated and the first flight of the drone was taken by Shri Shailendra K. Singh (General Manager of the Indian West Central Railways) in Damoh District, Jabalpur. Also, the Inspector General of RPF and the principal heads of various department of the Indian Railway was available for this inauguration event. Similarly, the RPF Bhusawal and RPF Vishakhapatnam drone was inaugurated by Sr. DSC of the respective locations and Aryacom has successfully imparted training to their teams for surveillance purpose.

Aryacom intends to enter various other sectors like ports and terminals, the Ministry of Home Affairs (MHA), Ministry of Defence (MoD) etc to provide these solutions and training to existing and new customers.

Aryacom Provides A Wide Range Of Drones

RYNO UAV

It is survey-grade micro drone that offers unbeatable area coverage. It features an advanced mapping payload and state-of-the-art capability for category-defying accuracy.

MEGAPHONE UAV

It has a dual payload setup – an HD camera with 10x optical zoom and a megaphone. With this setup, on-ground forces can safely conduct live surveillance and make live or pre-recorded public announcements simultaneously.

NINJA UAV

It is most accessible drone with the lowest training requirement in the industry. It is built with military precision for enterprise applications such as mapping, surveying, and surveillance.

Q-Series UAV

It is an enterprise specialist VTOL unmanned aerial system. It is a compact and lightweight system based on cutting-edge drone technology. It is based on tried and tested military design philosophies with swappable payload capability, enhanced flight stability, and varied fail-safe modes for increased safety.

NETRA V Series UAV

It is a fully autonomous, portable small UAV system. The drone plays a major role in surveillance, reconnaissance, and rescue operations with its zoom-in capability. The UAV can take flight from confined spaces and capture high quality images while being out of human visual and auditory range.

Netra Pro UAV

It is the most versatile UAV with supply drop capability. It can be used in demanding conditions as it is rugged and IP53 ingress certified. It is also highly reliable, as it is tested to military standards and has multiple built-in fail-safe operations and redundancies for GPS and rotor systems. It is the first UAV to operate LiDAR payload and can operate two payloads simultaneously, such as simultaneous day and night cameras.

SWITCH UAV

It is a fixed-wing VTOL UAV, which is a combination between fixed-wing UAVs and VTOL UAVs. It retains the best capabilities of both categories of UAVs of vertical take-off and landing and higher endurance. This portable UAV is a terrain dominator, no-compromise solution that guarantees your area of dominance with maximum range and flight time.

In the near future, Aryacom intends to focus on increasing the wide range of products and solutions in the drone sector, addressing various sectors of the industry and working with partners for including anti-drone solutions in its catalogue of services for customers ■

In Focus

Diversity And Sustainability

The performance of an organisation depends on the talent it attracts, retains and empowers. I have always believed in the potent philosophy "win the war for talent". Diversity and inclusion are instrumental to the growth, strategy and leadership of a company. Hiring decisions need to be based on the right "talent" for the right job, as opposed to the right "man" for the right job.

Gender diversity is known to be a driver, not just of revenue but of innovation as well.

Statistics reveal that the degree of innovation jumps 10% in companies when the percentage of female managers within a company crosses 20%. In terms of revenue impact, a 1% increase in gender balance is correlated with a 3% increase in sales revenue.

Having said that, I would like to share my experience in the shipping and logistics industry in a few words. I have been in the industry for 17 years, and I have been fortunate to have had great colleagues and seniors who have recognised my abilities and provided a healthy conducive environment for growth. I did, though, face challenges in being accepted in the North India market and had to work doubly hard to prove my capabilities and to be taken seriously as a woman. However, I just decided to let my work speak for itself. There was no point in becoming defensive about my gender. I just took a very neutral approach to any bias coming my way and kept silently creating a difference for my clients and their business. And, yes, never asking for concessions or special treatment (on account of my gender) was a big part of this.

I often had to travel to remote hinterland areas to visit clients, and I negotiated internally with stakeholders to create value pricing for my clients. I learned about their pain points so that I could address them to the best of my ability. As their account manager, I understood that to win their trust and confidence, I had to create way more value than the basic services offered. I started sharing market intel with them, such as trade information about their business. I found solutions for them to bring down their logistics costs, such as route optimisation. By reducing shipment turnaround times, they could import larger volumes of material every month, thereby enabling them to sell more.

Basically, the gender bias worked in my favour, as out of necessity, I had to create more, take more action and be more result oriented than I would have been in the absence of the bias. After a while, it stopped being an issue for me, because it was irrelevant once the results

Summiit Cheema
President - WISTA India
Founder - Dycecorp

materialised for my clients. It is interesting to note that inclusion also influences a company's culture too. Employees become actively engaged at work when they believe the culture is inclusive. If they have a sense of belonging, they perform better. Conversely, disengagement and attrition can often be attributed, in part, to a lack of inclusion.

To conclude, if you are hiring, then look for talented people with an impressive track record and who fit the bill, irrespective of their gender. If you are being hired, demonstrate to your prospective employer why they should hire you and what skillset you bring to the table. Seek out companies that promote an inclusive culture. A diverse workforce is an enriched one and fosters success, innovation and advancement ■

In Focus

The Business Case: Diversity

In 2019, we conducted the first survey to get data for women in the Indian maritime industry. A survey of 205 companies across all verticals of maritime found that women comprised of:

20% of the Total Workforce
5% of the CEOs
17% of the board members

Even from the 20% women working within organizations we found that the majority of the women were in "supporting positions" rather than management functions.

90% Companies stated that they received very poor applications from women during recruitment. And this is familiar isn't it? How often do we hear companies lamenting that we want to hire women but we just aren't able to find these women? In the survey these companies further stated that not only recruitment, but retaining women was the biggest hurdle. Apart from this survey , two other surveys were conducted to understand the issues faced by women at sea and onshore. 781 women working at shore and 112 women seafarers took the survey and highlighted issues faced.

We cannot deny that our industry lacks inclusivity. With our own internalized biases, we've chosen to go with comfort over inclusivity. Simply put, we decide to include people who we think would look and think like the majority. Oh and sometimes the token woman thrown in because after all, appearances are everything.

The IMO theme for 2020 WMD was Sustainable shipping for a Sustainable Planet. COVID 19 has made last year's theme even more relevant and the challenges it has posed for shipping. While 2019 was dedicated by the IMO to Empowering Women in Maritime I believe Sustainable Shipping cannot be achieved without Diversity or the role of the human factor.

There's also a business case for more female expertise in the industry. Today, we're missing out on 50% of the talent, 50% of the new ideas, 50% of the potential progress this industry could be making. And probably quite a lot of profit too.

An improved gender balance contributes to more diverse workplaces, with positive effects both internally and externally. Moreover, it positively influences the attractiveness of jobs and the competitiveness of the sector; The shipping industry places lesser emphasis on social sustainability as compared to economic and environmental sustainability hence its important to show how social sustainability has a direct impact on economic sustainability. In fact all three pillars are related.

Most industry stakeholders want a more prosperous industry where profits are bigger and higher. Were there gender parity in nations it's proven that gdp would go up by 25%. On one hand we lament about the lack of talent or labor pool available. On the other hand we have women who want to work, want to have the right training , education-have the right motivation but are not given equal opportunities to work.

To not let them work is a crime against economics and common sense. And if we want to make our industry and our country for that matter - even better then let's give it a big boost by just letting women participate (even at the inequitable terms that they can participate) because statistics show there is a 23% pay gap in identical jobs globally -whether it is a developed or developing country. Just as companies declare their financial results, so should they be declaring their efforts in terms of diversity

Sanjam Sahi Gupta
Founder, Maritime SheEO
Founder, WISTA India

and social sustainability. How well they are doing in terms of gender participation, people of color etc. Looking after the human element. We need to have an index and they should declare similar data to what they declare their profits and financial statements. Companies should be ranked in terms of their sustainability initiatives. That way companies will want to step up as it will be public knowledge.

In 2020, we conducted important research to understand the business case for diversity in the Indian maritime Industry- over 100 companies were asked - "Has increased gender diversity/ participation of women in your organization helped enhance your business outcomes?" A whopping 67% replied in the affirmative.

A qualitative individual feedback suggested that there is a wide belief that diversity leads to better business operations. However we are unable to support this with hard figures in the absence of measurement systems available. To get actual figures, companies would have to link diversity measures to performance drivers in all parts of the organization and ultimately to the organization's overall performance.

Equality is in itself a good goal - whether it delivers economic growth or not, but even if you are cynical enough not to believe in the idea, do it for economic growth.

Conclusion: In the highly competitive maritime industry, businesses need to rethink their hiring methods. Women can be the key to the future success of the maritime industry ■

INDIAN Cotton Yarn – Trends And Insights

(Continued from issue XXXIII)

Need for Market Diversification

Bangladesh is the largest market for export of cotton yarn from India in value terms. China and Bangladesh put together account for 50% of the yarn exports from India in quantity terms for the period April – November 2020. This clearly indicates that there is a need for market diversification to focus on countries where India's share of the yarn imports is less than 20%.

Markets such as Russia, South Korea, Vietnam, Turkey and a few of the Central American countries offer significant scope to increase the exports of cotton yarn from India. All these countries are sourcing most of their requirement of cotton yarn from their neighbouring countries due to various reasons, including Regional Trade Agreements, tariff advantages and other such factors. Considering inherent advantages of yarn manufacturing in India it is possible to increase India's market share in these countries with an in-depth understanding of the market requirements and by undertaking appropriate marketing strategies.

Cotton Yarn Exports On Recovery Mode

It is important to note that the recovery in cotton yarn exports was faster compared to its production as outbound shipments increased y-o-y in each of the months during April-October 2020 except for the initial two months of FY21. Where the shipments fell by 80% in April 2020 and by 24% in May 2020 due to lockdown restrictions. Subsequently, cotton yarn exports increased by 10.8% to 557 thousand tonnes during April-October 2020. The rise in cotton yarn exports was mainly driven by a surge in outbound shipments to Bangladesh which jumped by 74.2% to 140 thousand tonnes in April-October 2020. This is backed by duty draw back incentive in Bangladesh. This enables high, export-oriented readymade garment factories to import yarn and fabric which reimburses all customs duties paid on imported yarn, and fabric (but not taxes such as the VAT and Advanced Income tax). As a result, Bangladesh replaced China to become India's largest cotton yarn export destination during this period. Exports from India to China have also been impacted due to increasing reliance of China on Vietnam and Pakistan for its cotton yarn needs.

The share of Bangladesh in India's total cotton yarn exports expanded to 25% in April-October 2020 from 16% in the corresponding period a year ago while the share of China contracted by 1% to 25% as cotton yarn exports to China increased by a slower 5.3% to 139 thousand tonnes during the period. While international demand for cotton yarn is expected to stay stable backed by an increase in economic activities with the launch of COVID-19 vaccination drive in various parts of the world, it remains to be seen if Bangladesh continues to import significant quantity of cotton yarn from India.

Mid-January to mid-February every year is a dull period for cotton yarn export due to Chinese New Year holiday season. Even though the Chinese government has announced deferred holiday timelines this year to restrict mass movement of people fearing spread of COVID-19 pandemic, practically most of the textile factories are already closed for two to three weeks. Hence there is slowdown in export from mid-January onward. It is reported that Chinese spinning mills are operating at approximately 58 to 60% capacity over the past few months and are maintaining just about 5 days inventory of yarn and over 40 days inventory of cotton thereby indicating that robust demand conditions will continue post-holiday season. Internationally, cotton prices were stable while yarn prices saw a declining trend. However, there was a bit of volatility in prices of blended yarns in the month of January.

SIMA's Efforts to Increase Costal Movements of Cotton Yarn

The Southern India Mills Association (SIMA) has approached Ministry of shipping and VOC Port trust to make necessary study on below logistics issue for costal movement of cotton yarn.

Weights & Measures

In view of the Southern India Mills Association (SIMA), Tuticorin port has the potential to at least double the volume of coastal movement, cost and services are made attractive. However, it was pointed out that existing infrastructure facilities and terminal operators are not encouraging the coastal cargo. There is an abnormal delay in unloading containers in the terminals and because of this abnormal delay most of the mills in Coimbatore Region prefer Cochin port instead of Tuticorin port. Further, various charges which are levied like service charges for LCL, 20‘ and 40‘containers, GSP charges, certificate of origin, clearance expenses are high. It is to be noted that for transportation of yarn from Coimbatore to Colombo, the logistic cost is around 55,000 (INR). Considering the logistic cost (road transportation – Rs.26,000/-) from mills in Coimbatore to port destination (VOC port) and Ocean Freight from Tuticorin to Colombo (Rs.20,000/-), the port handling charges, and other expenses is around Rs. 9,000/- which is very high.

The empty container movement is also adding high cost in the logistic expenses. The port authorities were requested to consider the storage of empty containers at appropriate places to enable the exporters to make use of the containers for their export at a competitive price.

Government Measures To Accelerate Exports

China, the largest importer of cotton yarn, has replaced India with Vietnam and Indonesia, as they have duty-free access while Indian yarn carries a 3.5% import duty. In view of the sharp decline in exports, many production units are shutting down and need urgent policy therefore the industry players requested the government to extend the 3 per cent interest equalisation to cotton yarn.

India’s cotton yarn and fabric exports are struggling because of the duty disadvantage faced by the Indian exporters in the major markets. Texprocil has appealed to the government for the policy intervention. According to Texprocil, made-ups and garments exports are recording a positive growth mainly on account of ROSCTL (Rebate of State and Central Taxes and Levies) scheme extension and therefore has also asked to cover cotton yarn and fabrics exports in the ROSCTL schemes and refund the state and central taxes. These taxes account for seven per cent of the value and will go a long way in mitigating the serious situation in the spinning and weaving sector.

In the view of to benefit entire value chain of the textile industry, government in Budget 2021 has introduced Mega Investment Textiles Parks (MITRA) scheme, which they believe will facilitate 40 to 50 leading textile players to become ‘global champions’. “Tamil Nadu being the largest textile manufacturing State, is planning to develop three mega parks under MITRA, Andhra Pradesh and Telangana already have one such park each. This would facilitate attracting large scale investments including FDI and JVs. This scheme will enable the textile industry to become globally competitive, attract large investments and boost employment generation.

Import duty on cotton

Imposing 5% basic customs duty and 5% agriculture cess on cotton and cotton waste will lead to a cascading effect on the entire cotton value chain. India is mainly importing long staple cotton from the USA and Egypt for spinning fine count yarns in addition to comber noil and waste cotton from Bangladesh for consumption in OE spinning. Reason for such import is due to non-availability of required volumes in the domestic market and the additional duty will lead to increase in input cost for manufacturing finished products such as, fine fabrics, home textiles and denims. Going further industry hopes that government will reverse this additional burden on the cotton textile industry.

Stable Outlook

Due to large variation in cotton grades, cotton yarn grades, stocking cycles, production costs and other aspects, the profit gap of each mill was also large, but overall, it was difficult for spinners to make profits in the year 2020. In the January 2021 report on ‘Indian Cotton Spinning Industry Trends & Outlook’ published by ICRA, credit outlook for the spinning segment has been revised to ‘Stable’ which is an encouraging factor for the entire cotton value chain. It is expected that the present momentum in demand for cotton yarn, both in domestic and export markets to sustain the growth trajectory in the financial year 2021-22.

Sources: The South Indian Mills Association, ICRA, TEXPROCIL, Cotton Corporation of India, Cotton Yarn Market ■

INDIAN Castor Seed And Oil Scenario

Castor – Introduction

Castor Oil is a multi-purpose vegetable oil made by extracting oil from the seeds of the Ricinus Communis plant. These seeds, which are known as castor beans, contain a toxic enzyme called ricin. Castor oil is colourless to very pale-yellow liquid with a distinct taste and odour. It has variety of uses and is primarily used in the manufacturing of Soaps, Lubricants, Hydraulic and Brake Fluids, Paints, Dyes, Coatings, Inks, Cold Resistant Plastics, Waxes and Polishes, Nylon, Pharmaceuticals, Perfumes and many such products. Growing concerns pertaining to Biofuels especially Biodiesel and Biopolymer across the globe is pushing castor oil to play a much larger role in the world economy.

Castor seeds primarily grow in tropical and subtropical climates. India is the largest producer of castor seeds in the world, followed by China and Brazil. Castor seeds contain around 48-50 % oil by weight and about 45% of this oil can be extracted with presently available technologies. For extraction, seeds must be crushed and pressed with including oxidation, hydrogenation and thermal treatments to produce products for specific applications.

Indian Castor Scenario

India is the leader in global castor production and dominates in international castor oil trade with 92% share of total world's castor oil production. The Indian variety of castor has an oil content of 48% out of which about 42% can be extracted while the cake retains the rest. Castor grows well in tropical conditions and the crop duration is 4-5 months. In India, it is sown in July/August and harvesting commences around January/ February. The arrivals in the market start from January onwards till mid of May. The major castor growing states are Gujarat, Andhra Pradesh, Tamil Nadu, Odisha, and Rajasthan. It is also grown in the states of Uttar Pradesh, Maharashtra, Karnataka, Madhya Pradesh, and Bihar.

Young Castor Plant | Matured Castor Capsules | Castor Seeds Oil

Different Colours And Varieties Of Castor Seeds

Castor Seed

Total area under castor seed cultivation in India for the year 2020-21 (Apr-Mar) is estimated to be 826,120 hectares as per the government's estimates. This was a decline of 15% compared to the previous year. The total seed production in India is estimated to be 1.902 million tons in 2020-21 against last year's estimate of 1.953 million tons.

Major Castor Seed Producing States

Cultivation of castor seed mainly confined to western states like Gujarat and Rajasthan which together contribute 87% to total production. Gujarat has the largest share in India production with 71% share followed by Rajasthan (16%). Statewise production of Castor is shown in the table on the right side page.

Gujarat state ranks first position in the country with respect to area and production and productivity because majority of farmers are adopting hybrid varieties and cultivating this crop as irrigated crop. Gujarat, kadi has the world's highest castor

Weights & Measures

Statewise Production Of Castor						
States	Castor Acreage ("000" Ha)		Castor Yield Estimates (Kg/Hectare)		Production Estimates (in "000" Tons)	
	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21
Gujarat	740.60	638.00	2241.00	2553.00	1659.30	1629.00
Rajasthan	154.24	125.70	1598.00	1876.00	245.80	235.80
AP Telangana	57.35	38.22	593.00	589.00	34.55	22.52
Others	21.00	24.00	600.00	630.00	12.60	15.12
India	973.19	826.12	2006.00	2303.00	1952.25	1902.44

seed yield in kilograms per hector. Important castor growing districts in Gujarat are Mehsana, Sabarkantha, Banaskantha, Kutch, Ahmedabad, Kheda, Vadodara, Rajkot, Jamnagar and Gandhinagar.

Important castor growing districts of Rajasthan are Barmer, Jalore, Jodhpur and Sirohi. Productivity of farms in Rajasthan has been on a rise too owing to adoption of quality or hybrid variety castor seed, favourable weather and adequate availability of water for irrigation.

The most important castor growing districts in Andhra Pradesh and Telangana are Ananthapur, Kurnool, Mahbubnagar, Wanaparthy, Gadwal.

Global Castor Production Scenario

As of 2019-20, three countries (India, China, and Brazil) produced 93% of the world's supply of castor oil. As production is concentrated mainly in these three countries, total castor production varies widely from year to year due to fluctuations in rainfall and the size of the area utilized for planting. As a consequence, this concentration has led to cyclic castor production. Thus, diversification of castor production regions and production under irrigation would hopefully reduce the climatic impact on castor supplies.

Processing Of Castor Seed

Castor seed harvested from field is dried till the pods open. Seeds are hulled by using de-hullers or by hand to remove the seed from the pod. Castor seed contains about 50 percent of oil by weight and extraction of oil is done in a manner like that for most other oil seeds. The ripe seeds are allowed to dry when they split open and discharge the seeds. These seeds are cleaned, cooked, and dried prior to extraction. Cooking is done to coagulate protein (necessary to permit efficient extraction), and to free the oil for efficient pressing.

The first stage of oil extraction is pre-pressing, using a high-pressure continuous screw press – called the expeller. Extracted oil is filtered, and the material removed from the oil is fed back into the stream along with fresh material. Material finally discharged from the press, called cake, contains 8 to 10 percent oil. It is crushed into a coarse meal and subjected to solvent extraction with hexane or heptane.

Oil Press Machine

Castor Oil

The global castor oil and its derivatives market is expected to post a CAGR of over 5% during the period 2020-21. This growth is primarily owing to increase in demand from the end-use industries such as cosmetics, lubricants, and pharmaceuticals and the growing pressure for reduced petrochemicals dependence.

India is largest exporter of castor seed oil as it is largest producer of the seed. During the calendar year 2020 India's Castor oil exports have grown remarkable resurgent and reached to record figure of about 650000 tons compared to about 545000 tons in the previous years. This is the commendable achievement and shows the strength of the industry, that even COVID-19 could not slow it down ■

Global Castor Production (QTY in "000" tons)						
	2020/21	2019/20	2018/19	2017/18	2016/17	2011/12
India	1800	1970	1127	1460	1260	1950
China	17	36	26	32	37	160
Thailand	12	12	12	12	11	11
Africa	20	20	21	17	19	17
Brazil	43	31	20	13	15	141
World	**1974**	**2154**	**1289**	**1615**	**1424**	**2356**

(to be continued in issue XXXV)

In Conversation

With Mr. LUCA CASTELLANI

A very warm welcome to you, Luca, and thank you so much for accepting this invitation. We are very privileged to have you here with J M BAXI GROUP today. Thank you.

Luca Castellani – Thank you, thank you very much for inviting me here to share my views, which, of course, are mine alone and do not necessarily reflect the views of the United Nations.

Our topic today is electronic trade documentation.

Q1. Luca, would you please start with a brief introduction to your current work and focus areas?

Ans: I have been working for the United Nations for some time. I did different things of late. I focused on international sale of goods and also on what we traditionally called electronic commerce law, but actually is now referred to as digital trade law. I was also privileged to work with colleagues in the United Nations Economic and Social Commission for Asia and the Pacific in Bangkok. I am currently working on specific legislative-drafting projects, e.g. supporting countries in drafting electronic transactions. This gives me opportunities to better understand issues specific to each different country. For instance, I have been working many years assisting Afghanistan on this and we achieved a milestone last year when the electronic transaction law was passed. Now I'm working in South Asia and in the Pacific. Some countries, like small islands, are really fragile and they depend more on connectivity and digital trade. At the same time, they face real issues like the costs of satellite connectivity etc. It makes me privileged to understand such real challenges across the globe.

After graduating in Law from the University of Torino, Luca received a doctoral degree at New York University. He joined the Office of Legal Affairs in the Secretariat of United Nations in 2001 and the UNCITRAL Secretariat in 2004, where he works in the areas of international sales law and electronic commerce. As a secretary of UNCITRAL working group 4, on electronic commerce, he oversaw the preparation of the UNCITRAL model law on electronic transferable records. He is also active in the field of paperless trade facilitation and has contributed to drafting the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific. From March 2012 to November 2013 he was assigned as the first head of the UNCITRAL Regional Centre for Asia and the Pacific located in Incheon, Republic of Korea. He has published several articles and other materials on international trade law and comparative law, namely, sale of goods, electronic commerce and trade law reform in developing countries. With that brief introduction we look forward to talking with Luca.

Q2. Thank you for that introduction. Can you tell us how long this effort has been ongoing – the effort to create digital alternatives to paper documents? Do you feel that progress has been slow? If yes, why?

Ans: When we start discussing this issue, we have to bear in mind that one of the first cases dealing with the legal value of an electronic signature comes from New Hampshire, United States, and dates back to 1869, which is more than 150 years. Progress has been slow but what comforts me is that the solution suggested in 1869 is the same that we have today, which means it is the right solution.

The use of documents in electronic form is comparatively simple. We have clear legal standards and huge acceptance in business. However, we still have different understandings of what an electronic signature actually is.

We also have issues like the transfer of negotiable documents, which have the peculiar feature that they entitle the holder to payment of money or delivery of goods. With respect to negotiable documents, the issue is tangibility, which means the possibility to touch. This notion refers to physical control, which we call "possession" in legal terms.

In Conversation

Q3. What is MLETR? Why do you think this is particularly a catalyst for change? What are the significant other laws that one ought to read and get acquainted with?
Ans: – Indeed. The UNCITRAL Model Law on Electronic Transferable Records (MLETR) is the talk of the day as it was enacted recently by Singapore.

To put things in perspective, UNCITRAL has prepared a series of legislative texts that enable the use of electronic transactions. The first of them was the Model Law on Electronic Commerce of 1996, then came the Model Law on Electronic Signatures in 2001, and the United Nations Convention for the Use of Electronic Communications in International Contracts in 2005.

These texts altogether have been adopted by more than 100 states, which is a huge number, including in South Asia, Bangladesh, Bhutan, India, Pakistan, Sri Lanka and soon the Maldives.

And now we have this new model law, the MLETR, supporting the use of electronic transferable documents in global trade. This matter had already been addressed in articles 16 and 17 of the Model Law on Electronic Commerce, but those provisions have not been implemented.

I would like to stress that currently there is reference in business to "electronic bills of lading" but, in the vast majority of these cases, these are not real bills of lading in electronic form; these are based on contractual rule books that replicate some features of the given trade. To be very clear, the business function of bills of lading may not be discharged with these so-called "electronic bills of lading".

This is an issue for some of the parties involved in the use of bills of lading. In particular, if one wants to use the bill of lading as a collateral for trade finance, this type of "electronic bill of lading" may not give a lien on the goods, and this in turn requires more capital to the banks for finance.

The MLETR is the daughter of her times. It performs all the functions of paper bills of lading and other transferable instruments and documents. Moreover, a paper-based document cannot contain metadata or dynamic information originating from dataflows. An electronic transferable record issued under the MLETR can.

In the year 2021, we are all able to use MLETR to legally enable electronic trade documentation. But we should be able to do more than just replicating the functions of paper-based documents. For instance, we should be able to incorporate in the electronic bill of lading contractual terms on payment of the price upon arrival of the goods at port so that, when the ship arrives at the port, the GPS of the ship can communicate to the bill of lading that the condition for payment has been complied with and the bill of lading will automatically send an instruction to the bank to pay the price of the goods. You see how the automated transaction means more control, more visibility, fewer costs, less human interaction. We already have all of this technology and we also have the legal certainty. We will need to develop business practices and operating procedures so that when we migrate to a digital environment, we have better governance and reduced compliance costs.

The risk of fraud is perceived as less in paper documentation – we feel we can verify what is authentic and original and we can predict the margin of loss based on experience and practice. This may not be necessarily true.

Q4. In your opinion do you think some nations can aspire to go paperless in trading soon and who are the frontrunners globally?
Ans: Of course there are some countries that want to be at the forefront and have to be at the forefront because of economic policy priorities, sometimes because of their geography; for instance, they may have an ideal profile for digitisation, which means a country not too big but also not too small and developed enough. The MLETR early enactors are Singapore and Bahrain, together with the Abu Dhabi Global Market in the United Arab Emirates. These are countries with strong trading experience and history. They have been prominent for centuries.

We need to reach a critical mass for MLETR adoption and use.

Other countries may also be frontrunners. When there is an interest, we see a lot of excitement in terms of technological development. I am old enough to remember when calling overseas was very expensive. Video calls were supposed to be for professionals only: TV connections or stuff like that were totally out

In Conversation

of reach. Now millions can do it at the same time for free. Success in digital trade is the result of various components: the policy has to be clear and has to be implemented in an effective manner, the technical infrastructure has to be robust and modern, and the legal environment has to be enabling. By enabling I also mean we should keep regulations to levels that are actually needed. The words 'regulation' and 'innovation' may rhyme but don't sit well in the same sentence. We need to create a space where innovation works.

Some big obstacles today are related to sharing commercial data and to regulation. I think it is essential for people to understand that data has value if used in a timely manner. The data has to be aggregated or analysed in a certain way to be put to use. We have to treat data in a better way than as a commodity, giving value to data along the mindset of 'data is the new oil'. The next big challenge is to break the data silos we have within organisations and between countries.

Q5. Can you share a word of advice for companies and countries looking to adapt and adopt?

Ans: The possibility to go 100% digital depends on the field of operations. Can we go 100% digital with trade documents and trade facilitation? Today we can do it more easilywith business-to-business exchanges.

We have a big elephant in the room. The elephant is the single window, which is electronic but should also be designed in a highly interoperable manner. In case of countries like Singapore and Bahrain that have already adopted MLETR, I would like to see use cases implemented. I see no reasons why these use cases should not deliver the expected benefits. We only think of benefit for business; however, we have to think also of benefits for broader society, such as reduced environmental impact. Once the benefits are measured, I see no reason why business will not buy in.

Larger countries face special challenges. My suggestion is to start with pilot cases. However, do not use a pilot case that is too different from reality and is not meaningful. Ideally it should be possible to pass legislation in a special economic zone that says: "OK, now we operate 100% digital for six months, one year, two years, see what happens." And then go back to the central govt and report on requirements and benefits. That's what I'd like and hope to see.

Also, if you'd please allow me to speak on how we respond to the pandemic; you know well that if you have visibility of the entire logistics chain, then you are able to prioritise your logistics and shipments, eg import or export of vaccines. If the supply chain is automated, you rely less on human factors. Down the line, governance of shipments is more efficient because of the better control of the ecosystem, so that we always know where things are because of better connectivity. Also, it's important to have more access to clients' data because if we know clients better we reduce transaction costs and risks.

Q6. I remember reading about using free trade agreements to establish a channel of trusted data sharing and, just like one would agree on duty free or on a "green channel" between two countries, one could also agree on wholly electronic trade documentation between those two countries.

Ans: This is a very interesting point and it has multiple layers. Technology neutrality and interoperability go hand in hand. As has been said earlier, we have to be wary of special ways of arranging data because special arrangements may come with technical specifications and create another information silo.

However, especially in Asia and the Pacific, there are significant regional trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership or CPTPP and the Regional Comprehensive Economic Partnership or RCEP that provide a certain uniformity in electronic trade documentation, at least in aspiration.

There are digital economy agreements between Singapore and Australia, Chile, and New Zealand and more are being discussed with Canada, UK, etc. – where you will find some detailed guidance on implementing electronic trade documentation. At a high level, you also have the Framework Agreement on the Facilitation of Cross-Border Paperless Trade in the Pacific, which has entered into force in February 2021, and is an umbrella framework treaty providing a forum for exchanging information and best practices with working groups on both legal and technical issues.

In this context, a country like India may soon embrace the right mix of policy, governance framework and law to move towards digital and paperless trade ■

Port Statistics

SHIPPING & CARGO PERFORMANCE

QUARTERLY UPDATES ON INDIAN MAJOR & MINOR PORTS (QTY IN MILLION TONNES)

JANUARY - MARCH (IVth QUARTER) 2020 - 2021 / JANUARY - MARCH (IVth QUARTER) 2019 - 2020 (QTY IN MT)

AGRICULTURAL PRODUCTS & EXTRACTIONS

	SUGAR		RICE		SOYA BEAN MEAL		RAPE SEED MEAL		COPRA EXPELLER CAKE	
	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
No. of Ships called	60	49	111	32	22	3	5	3	11	10
Total Cargo Handled	1.760	1.368	1.796	0.663	0.468	0.118	0.062	0.014	0.069	0.120
Import	0.176	0.020	0.040	0.000	0.000	0.000	0.000	0.000	0.069	0.120
Export	1.584	1.348	1.756	0.663	0.468	0.118	0.062	0.014	0.000	0.000

FINISHED FERTILIZERS & FERTILIZER RAW MATERIALS

	UREA		SULPHUR		ROCK PHOSPHATE		DAP		MOP	
	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
No. of Ships called	27	49	15	11	50	52	7	24	26	34
Total Cargo Handled	1.119	2.171	0.417	0.424	1.996	1.985	0.265	0.909	0.849	1.116
Import	1.119	2.084	0.312	0.151	1.996	1.985	0.265	0.909	0.849	1.116
Export	0.000	0.087	0.105	0.272	0.000	0.000	0.000	0.000	0.000	0.000

COAL AND COKE

	NON COKING COAL		COKING COAL		MET COKE		PET COKE		OTHER GRADES OF COKE	
	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
No. of Ships called	664	920	323	324	14	16	23	57	17	2
Total Cargo Handled	50.532	65.005	18.509	17.140	0.395	0.377	1.109	2.430	0.364	0.018
Import	43.481	57.141	18.436	16.982	0.306	0.368	1.109	2.322	0.347	0.012
Export	7.050	7.864	0.073	0.158	0.089	0.009	0.000	0.108	0.017	0.007

OTHER BULK & BREAK BULK CARGO

	CEMENT		MINERALS		IRON ORE		STEEL PRODUCTS & PROJECT CARGO		GRANITE	
	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
No. of Ships called	169	171	379	436	546	424	433	429	49	66
Total Cargo Handled	2.646	2.540	15.013	16.839	31.713	22.477	4.416	3.418	0.886	1.113
Import	1.410	1.275	11.424	12.380	6.753	5.883	1.659	1.579	0.000	0.031
Export	1.236	1.266	3.589	4.459	24.960	16.593	2.757	1.840	0.886	1.082

LIQUID COMMODITIES AND LIQUIFIED GASES

	CRUDE OIL & OIL PRD		CHEMICALS & LUBES		EDIBLE OIL & MOLASSES		ACIDS		LIQUIFIED GASES	
	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
No. of Ships called	1395	1550	704	657	0	301	178	165	409	449
Total Cargo Handled	85.390	95.781	6.381	6.394	0.000	3.740	1.883	1.912	11.229	12.927
Import	65.235	73.023	4.066	3.647	0.000	3.492	1.799	1.912	11.114	12.773
Export	20.155	22.759	2.315	2.747	0.000	0.248	0.084	0.000	0.115	0.153

INDIAN PORT PERFORMANCE - Q4 & FY 2020 - 21 THROUGHPUT (QTY IN MILLION TONNES)

JANUARY - MARCH (IVth QUARTER) 2020 - 2021 / JANUARY - MARCH (IVth QUARTER) 2019 - 2020 (QTY IN MT)

Ports	Types of Ports	NO. OF SHIPS		LIQUID CARGO		BULK CARGO		CONTAINERS (TEUS)		TOTAL CARGO *	
		IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20	IVth Qtr'21	IVth Qtr'20
Kandla	■	631	672	3.27	3.86	6.79	7.92	137,352	155,622	10.06	11.79
Mumbai	■	459	499	7.45	8.27	1.43	1.85	-	-	8.88	10.12
Jnpt	■	207	200	1.84	1.54	0.40	0.00	1,393,525	1,682,839	2.24	1.54
Mormugao	■	141	145	0.21	0.15	6.63	4.08	-	-	6.84	4.23
Mangalore	■	364	372	7.07	7.13	2.83	3.08	-	-	9.90	10.20
Cochin	■	189	189	6.19	6.10	0.50	0.44	211,725	203,804	6.70	6.54
Tuticorin	■	262	327	0.33	0.43	3.14	4.65	227,763	264,265	3.46	5.07
Chennai	■	202	195	3.35	3.47	1.32	0.97	427,460	422,299	4.66	4.44
Ennore	■	187	186	1.33	1.21	5.37	5.75	78,515	47,419	6.70	6.95
Visakhapatnam	■	506	553	4.14	5.04	12.67	12.77	117,464	158,426	16.81	17.81
Paradip	■	543	552	9.86	9.24	21.76	21.29	4,740	-	31.62	30.53
Haldia	■	477	557	3.57	3.91	5.80	7.04	48,769	52,080	9.37	10.95
Kolkata	■	20	21	0.00	0.23	0.08	0.02	140,027	203,876	0.09	0.24
Gangavaram	■	132	139	0.00	0.00	9.25	9.76	-	-	9.25	9.76
Pipavav	■	121	111	0.17	0.20	1.86	1.59	225,236	280,401	2.03	1.79
Mundra	■	846	790	5.41	6.98	8.72	10.25	1,657,982	1,646,560	14.13	10.25
Dahej	■	149	170	5.76	5.91	1.50	2.05	-	-	7.26	7.96
Hazira	■	261	161	1.17	1.80	6.34	2.12	194,394	205,376	7.51	3.92
Navlakhi	■	25	52	0.00	0.00	1.72	2.87	-	-	1.72	2.87
Kakinada	■	202	211	0.80	0.84	2.60	2.84	2,680	4,037	3.41	3.68
Sikka	■	352	414	31.32	36.49	0.00	0.02	-	-	31.32	36.51
Vadinar	■	126	141	13.02	14.55	0.00	0.00	-	-	13.02	14.55
Krishnapatnam	■	202	220	0.32	0.35	8.08	10.48	77,282	181,273	8.40	10.82
Kattupalli	■	11	19	0.05	0.00	0.04	0.15	155,171	233,736	0.09	0.15
Bhogat	■	7	8	0.50	0.60	0.00	0.00	-	-	0.50	0.60
Total Vessel Calls at all ports		**6,622**	**6,904**	**107.12**	**118.30**	**108.85**	**111.98**	**5,100,085**	**5,742,013**	**215.97**	**223.30**

■ Major Port ■ Non-Major Port

* Total Cargo Includes Liquid Cargo , Bulk Cargo and Other Cargoes and Excludes Containers

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