

J. M. BAXI GROUP

TIDINGS

ISSUE XXXII

DECEMBER 2020



Moving Cargo from
DOORSTEP to
DESTINATION

12

IN CONVERSATION:
*With Mr. RAMESH
HARIANI, MD Of,
G. R. ENGINEERING*

14

LOGISTICS:
*BOXCO LOGISTICS And
The Oxygen Trials*

16

TECHNOLOGY:
*ONE Line Onboards
PCS1x Using An API For
eDOs*



Table of Contents

J. M. BAXI GROUP

TIDINGS

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- [05 JNPT AND MICT: SEEING A RECOVERY](#)
- [06 BUSINESS AND TERMINAL PERSPECTIVE AND THE WAY FORWARD](#)
- [08 VISAKHAPATNAM PORT STANDS STRONG AMID UNCERTAIN TIMES](#)
- [10 DEALING WITH CREW EMERGENCIES AND MEDICAL EVACUATIONS THE J M BAXI WAY](#)
- [18 MAJOR PORT AUTHORITIES BILL, 2020-A STEP IN THE RIGHT DIRECTION](#)
- [20 PALM OIL AND ATMANIRBHAR BHARAT](#)
- [22 INDIA PULSES OUTLOOK](#)
- [24 INDIAN AUTO SECTOR – ROAD TO RECOVERY POST PANDEMIC](#)
- [27 PORT STATISTICS](#)

* All maps are for representation purpose only

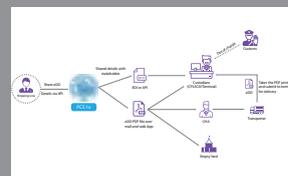
12



14



16



J M BAXI GROUP

From the Quarter Deck

Dear Friends and Colleagues,
Here are some headlines that were hard to miss in the last few weeks:

Such headlines and many more bring to the fore earlier discussions about whether the recovery will be L-shaped, U-shaped, V-shaped, W-shaped, etc. Whilst some of these headlines do suggest that there will be a V-shaped recovery, there is also talk of a K-shaped recovery, which basically means that different sectors of the economy will react differently to the pandemic. So, whilst airlines,

airports, hotels and movie theatres have been badly hit, ports, shipping lines, pharmaceuticals, etc. are better off.

The beginning of 2020 saw the introduction of low-SOx fuel or scrubbers if non-compliant fuel is used. The shipping industry was encouraged to use gas as a cleaner fuel. Until recently, only smaller ships, barges and coastal vessels have experimented with LNG; however, the maiden voyage of MV Jacques Saade carrying 22,000+ TEU ex Asia to Europe as a LNG-fuelled



ship is a milestone. Along with this news, it is also exciting to read that shipyards have begun to work on the possibility of ammonia-fuelled ships. The next 2 to 3 years are likely to see rapid developments, and it may well turn out that by 2035 or 2040,

HEADLINE



High freight rates are expected to benefit global container shipping lines.



CMA CGM's MV Jacques Saade, the world's largest LNG-fuelled vessel, sailed out full from Singapore to Europe.



China-US freight rates have almost doubled, and volumes have increased year on year.



All of Hyundai's new large builds have sailed out full from Asia to Europe.



Shipyards are getting ready to build ammonia-fuelled 23,000 TEU ships.



The Shipping Corporation of India (SCI) and Great Eastern Shipping (GESCO) have reported much higher Q2 (Jul-Sep) profits this year in comparison to last year.



There have been cyberattacks against the top five container shipping companies in the world in the last 12 months.



Port volumes in India for September 2020 are recovering back to normalcy.



Stolt-Nielsen Limited announces better than expected results in Q3.



From the Quarter Deck

the old dirty fuels, including low-SOx fuel, may have been totally phased out. This is an opportunity to create a suitable fuelling infrastructure in various parts of the world.

The monsoon has just concluded in India, and the present standing crop promises a record harvest for cereals, pulses, oilseeds, cotton, sugar cane, etc. This is fantastic news because during the worst of the pandemic, agricultural commodities continued to be shipped out of India to various international destinations. The government of India has enacted new laws specifically pertaining to agriculture, which promise to make the lives and livelihoods of farmers easier and better by enhancing marketplace opportunities for them.

Whilst on the subject of laws, a new law – the Major Port Authorities Bill 2020 – has been promulgated in place of the Major Port Trust Act 1963, in keeping with the changed times and to cope with the new generation of ports and ships. Similarly, the government of India is proposing to enact a new National Logistics Policy, which would enhance cost competitiveness, transparency and digitalisation in the logistics and supply chain of India.

India has been committed to becoming an increasingly better connected and integral part of the global manufacturing base and supply chain. The main requirements for achieving this are a good infrastructure, a specialised and skilled workforce, capital, technology, digitalisation and logistics. This endeavour has seen

continuous momentum in the last few difficult months, which gives us confidence that this ongoing effort will continue to see traction and growth.

It is also fortuitous that our terminals are in areas that are seeing successful projects by local authorities, economic participants and other stakeholders, who have created transport hubs near our sites. What makes this all the more exciting for us is that by next year, we will be able to pursue our ambition of setting up free trade warehousing zones and to participate in the logistics hubs being developed by ports that are close to our terminals in Vizag, Paradip, etc.

On the shipping front, container shipping has had a remarkable six months of unstoppable growth. With the demand for cargo on the rise, it seems that there are good days ahead for this sector. The tanker market has not had a good run, but still, it continues to be in positive territory. With volumes in the bulk trade growing, some amount of stability, if not strong profitability, is apparent. The LPG ships were the clear winners in this period, and their future looks steady. The oil and gas sector remains deeply distressed, and it is hard to spot any signs of recovery.

The other and perhaps, the main, winners during this period were technology and digitalisation businesses. Working from home, faceless transactions and assessments, and paperless processes are all the new normal.

Government authorities, like customs, the port authorities and DG Shipping, and the banks have all enabled this transition from the old to the new.

Our group has continued to remain in positive territory in terms of volumes and growth. With a gradual revival of the global economy and demand, we should see growth ahead. Our technology business Portall and DIABOS are positioned to be the new normal.

In our previous two issues, we discussed and pictured wheels in motion and featured the people behind the wheels, respectively. This issue continues with the same themes, but also “the time starts now” and that “time and tide wait for no one”. In many ways, these topics highlight the essence of the J M BAXI GROUP of companies, since each and every one of us is trying to keep the wheels in motion, especially the people behind the wheels. Moreover, because we recognise that time and tide wait for no one, it is crucial that we continue to make good progress.

I hope you enjoyed reading this and catching up. I would also like to take this opportunity to wish each one of you and your family members a Joyous and Prosperous Christmas and New Year.

Stay safe, healthy and happy.

Signing off from the quarter deck of Tidings ■

Krishna B. Kotak
Chairman - J M BAXI GROUP



Infrastructure

JNPT And MICT: Seeing A Recovery

JNPT is on the path to normalcy with regards to volumes. Operationally, JNPT has always been at the forefront, which continued during the lockdown. JNPT is the country's largest port in terms of containerised cargo. It handled approximately 80 per cent of the total traffic in comparison to the same period last year.

The unlocking started in June 2020 in Maharashtra, and since then, exports have increased. In fact, export volumes have already attained normalcy. This has helped JNPT, as well, in terms of realising a positive overall throughput. With export consignments gradually picking up, JNPT is now adjusting to the new normal, as cargo volumes recover month after month. Imports too are increasing. The comparison between Q1 and Q2 volumes bears testimony to the same. JNPT volumes have consistently been on a growth trajectory since April. In the second quarter of financial year 2021, JNPT performed much better than in Q1.

Due to the unlocking of restrictions, the gap between imports and exports narrowed rapidly and returned to its usual position in September 2020. Overall volumes are looking up. China loadings are currently increasing. Ocean freight for Europe, the Far East and the Gulf has also increased.

In fact, many manufacturing units are shifting from China to Malaysia, Bangladesh, Indonesia and other smaller developing countries with trade-friendly policies. Traffic is also coming from Taiwan and Singapore as well. Thus, overall volumes are expected to increase, as there is a pent-up demand that needs to be fulfilled. Volumes are expected to bounce back completely in 2 or 3 months.

In summary, JNPT is constantly evolving and returning to normalcy.

MICT, also a part of J M BAXI GROUP, continues to remain amongst the top-performing CFSs in Nhava Sheva. Q1 and Q2 volumes have remained subdued as industrial activities in the

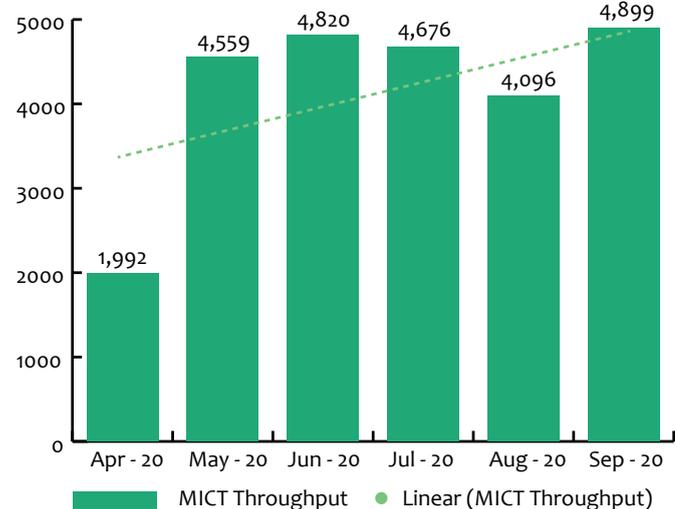
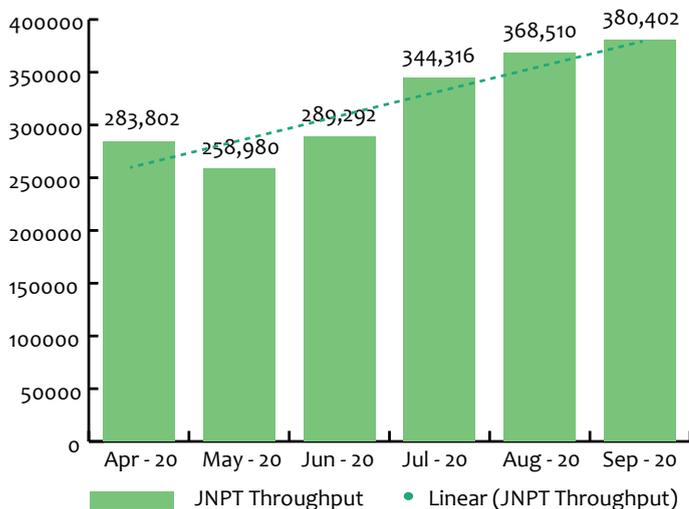
local hinterland are reviving slowly. Despite the Covid-induced delays and skipping of Nhava Sheva by the main lines, MICT volumes still grew by 20%. They increased from 11,371 TEU in Q1 to 13,671 TEU in Q2, whereas JNPT had a 31% increase in throughput, from 832,074 TEU in Q1 to 1,093,228 TEU in Q2. Exports from JNPT were extremely strong, but due to limited space, MICT could average only 600 TEU a month.

In Q2, base import products, like chemicals, machinery and food, restarted. Reefer imports of confectionery, dairy products and fruit and are expected to peak by November.

To offer a full range of services to end customers, MICT is developing a cold store, a bonded and general warehouse, and an open bond facility at MICT-2, which should be ready early next year.

Volumes at MICT are also showing an upward trend, like JNPT, as depicted in the graph ■

JNPT Throughput vs MICT Throughput



Infrastructure

Business And Terminal Perspective And The Way Forward

The Situation During the Lockdown

As Covid-19 was spreading its wings in India, despite logistics being categorised as an essential service, volumes took a plunge due to the transport challenges for the first mile (cargo evacuation from port) and the last mile (supply chain between inland container depots to company warehouses). With the disruption to both the demand side as well as the supply side, the terminals, CFSs, ICDs and warehouses were feeling the heat.

Pre-Covid bookings of imports were still arriving in India and the CTOs were evacuating containers from ports trying to avoid port ground rent, which was not relaxed by the ports even after the government notification. At the same time, many customers were not able to receive deliveries due to the lockdown as manufacturing units were not classified as essential services. The only exports were of essential commodities (such as agricultural goods, especially rice), which made exporting easy for the terminals. Import containers, thus, became stuck at terminals and ICDs. Within a month due to non-deliveries of imported cargo, an imbalance arose and 40 per cent of the container inventory in the NCR was surplus. Moreover, some of the inventory at terminals was idle because it was the wrong size for exporters. This resulted in a clogging up of facilities and a lack of space at some ICDs and CFSs.

Ultimately, the railways allowed empty containers and flats to move without charge during lockdowns 2.0 and 3.0, which resulted in significant savings for CTOs. The operators were able to move rakes swiftly on the rail network, which ensured the timely movement of cargo to and from ports. This also helped the shipping lines to manage their inventory levels and reduce the imbalance.

As terminals were facing issues related to exporting, north Indian ICDs started to receive empty containers for export movements from their area, which is continuing due to the slowdown of imports. Mainly TEUs were required due to the relaxation of which commodities could be exported.

In April 2020, during the second phase of the lockdown, movements in the NCR fell by 30 per cent compared to March 2020. Volumes fell again in May, though there was less of a decline as exports started picking up due to a relaxation of the lockdown for some businesses. The overall trade was affected, as market volumes had fallen by 24 per cent compared to before the lockdown.

The Situation After Lockdown 4.0

Logistics chains are experiencing bizarre and huge misfortunes due to the interruption resulting from the Covid-19 pandemic. Even after a relaxation in the lockdown for some industries, business has not yet returned to normal, as many workers, including drivers, went back to their home towns, which resulted

in staff shortages at various facilities and manufacturing units across the region. Some industries have closed due to the non-availability of skilled staff as per health and safety guidelines. This has directly hit export and import volumes for the nearby terminals, ICDs and CFSs.

After the relaxation of the lockdown and movements of cargo increased again, we faced our next challenge, which was the space crunch due to the amount of uncleared cargo and the number of containers at the terminal. Waiting times for loading and unloading increased due to the bunching of exports and imports, uncleared cargoes, the non-utilisation of empty containers, an increase in the number of vehicles etc.

To reduce congestion and waiting times at the terminal, DICT has begun to store empty containers at nearby yards, which has relieved the congestion at the terminal and reduced loading and unloading times for containers. However, road forwarding is still challenging as Sonapat District is in the red zone as per the government demarcation and because DICT has to manage its daily operations with a limited workforce. DICT is working to increase its service levels during the crisis and provide services to its valued customers.

With the surfacing of the deadly Coronavirus, many export businesses, such as manufacturers of chemicals, dyes, pigments, pharmaceuticals, textiles and automobiles, faced short-term



Infrastructure

supply disruptions due to global production shutdowns and slowdowns. However, the situation improved after lockdown 4.0 and DICT witnessed an increased flow of cargo.

In contrast, importers have suffered from a reduction in demand. Supplies of wastepaper, petrochemicals, dyes, pigments, chemicals, rugs etc. may be affected for some more time due to a lack of workers and reduced market demand.

Volumes started picking up in June, as restrictions on the movement of major export commodities were relaxed and imports from other countries, which had been stuck due to the various lockdowns, started to pump in. However, July and August were challenging, as imports were slow for north India. New export orders are catering to the festival season in the Gulf and the West. There is still a long way to go, as volumes are not great in comparison to the pre-Covid era.

Containers are still blocked by the slow delivery of import containers, mainly due to the unavailability of skilled workers, closures and inland supply chain bottlenecks. Carriers are continuing to move empty containers from overseas locations to fulfil demands by exporters.

Further, the immediate growth prospects of the sector remain



subdued and the domestic logistics sector is expected to contract in the current fiscal year.

Way Forward

Though the manufacturing industry is still facing challenges due to the demand and supply issues, the logistics sector may soon see the visible growth of exports and imports, which may reach the volumes of 2019/20 by the end of calendar year 2020. From discussions with customers, it is expected that volumes will grow in the coming months. The entire NCR EXIM market is expected to grow by 6–7% during the third quarter of this financial year.

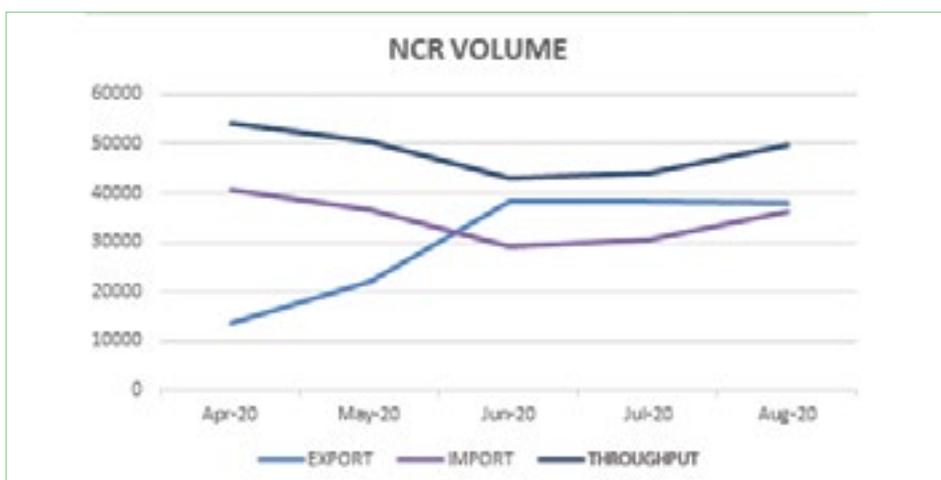
As imports of commodities such as polymers, EVA, PVC compounds, etc., which comprise 5% of NCR import volumes, have been shifted to Mundra Port, NCR ICDs will witness a decrease in the volumes of these commodities in the coming months.

In contrast, imports of other major commodities, like wastepaper, scrap, rags and calcium carbonate, will witness an improvement in the coming months. However, there is an increasing amount of imports pending at ports and destined for NCR ICDs. Imports from China may be affected for some time, but we are receiving mixed reports about imports from China from the shipping lines. Imports from the USA, Europe, the Gulf, Africa, Singapore and Korea are returning to normal.

The volume of cotton goods exported will slow down after mid-November 2020. Rice exports will peak after November as bookings from Gulf countries resume. Reefer exports have already improved, as demand from Malaysia, Indonesia, Hong Kong, some Gulf and African countries, and China has increased. Capital goods, machinery, petrochemical products, pharmaceuticals, hand-loomed items, handicrafts, etc. will be stable from now onwards as bookings are stable.

The shipping lines are also expecting a surge in bookings as volumes are showing a visible increase. The shipping lines are reducing the repositioning of empty containers from the port to north Indian ICDs based on import projections, which indicate that the trade is expecting positive results in the coming months.

Though the COVID-19 pandemic cooled the markets for a while, it has not killed off people's spirit, and businesses in various industries are expecting growth from the third quarter onwards ■



Infrastructure

VISAKHAPATNAM Port Stands Strong Amid Uncertain Times

The COVID-19 pandemic temporarily stalled operations in the entire country; however, Visakhapatnam Port, one of the major ports in India, kept the dice rolling and ensured that the wheels of operations continued to meet customers' requirements. During the initial days of the lockdown, the port faced a few challenges in cargo evacuation; however, with the gradual relaxation of restrictions, commodity movements began to increase at a slow pace. Commodities like chemicals, pharmaceuticals, rice, food products etc., which are essential, had continued to be moved during the lockdown. Now, the overall EXIM traffic handled by the port is well on course to recovery and there are good signs of a return to normality.

While the competition ports witnessed a drop of 11–15 per cent in volumes, Visakhapatnam Port

overall experienced a drop of only 4 per cent in the first half of the fiscal year. Iron ore and steel exports were the main saviours, with increased orders to China, despite the geopolitical tension between India and China. The Chinese are believed to be spending on infrastructure projects that require huge amounts of iron ore and steel products, leading to this growth in exports. VPT recorded 32 million MT of EXIM traffic from April to September 2020, compared to 33.5 million MT for the corresponding period last year. Exports from Visakhapatnam Port had an upward trend in FY21 in comparison to the same period last year, growing at a rate of 35 per cent, while imports fell by 25 per cent.

Import volumes grew for commodities like fertilisers, raw materials and LPG, while other commodities, like crude oil, coal etc.,

fell. The overall cut in production by the metal industries during the lockdown impacted the imports of coking and metallurgical coal. Likewise, ore imports suffered due to cuts in production by the ferroalloy industries, which eventually picked up from June 2020 onwards. Therefore, imports could not match the levels seen in FY20 due to the impact of the lockdowns in various countries, such as China, Korea, Japan, Malaysia, USA, etc. Crude oil is primarily imported from Iran, UAE and Turkey, where the effect of COVID-19 was high from January to April; however, the situation in these nations has improved. The consumption of crude oil in India dropped from April until August due to the lockdown, despite the gradual unlocking. Oil imports slowly picked up in September. The table below shows the recovery of imports, which have already reached 80 per cent of pre-Covid levels.

Commodity	Apr '20	Apr '19	May '20	May '19	Jun '20	Jun '19	Jul '20	Jul '19	Aug '20	Aug '19	Sep '20	Sep '19
Crude oil	8.67	8.99	7.42	7.98	8.08	8.55	6.15	7.44	5.41	6.52	6.69	5.81
POL	1.19	2.51	0.56	2.74	2.15	5.32	2.47	3.16	1.98	2.43	1.08	2.88
LPG	1.52	1.58	1.49	0.99	1.20	1.06	1.39	1.23	1.62	1.71	1.44	1.47
Coking coal	4.88	5.55	3.95	7.51	3.10	7.95	1.81	9.05	3.36	6.29	6.52	5.91
Steam coal	2.99	11.05	3.09	4.48	4.05	4.11	2.70	6.63	5.17	4.38	2.53	7.38
Fertiliser	1.30	0.00	1.66	2.77	1.10	2.77	2.48	1.67	3.85	1.70	1.09	1.41
Raw materials	0.58	0.07	0.40	0.84	0.75	0.24	1.11	0.30	0.71	0.12	1.02	0.61
Containers	3.40	3.42	2.01	3.90	2.33	3.36	2.56	3.41	2.29	3.94	3.10	3.45
Others	6.11	4.52	4.51	4.79	4.24	6.08	4.22	6.77	4.95	5.61	5.62	5.69
Total	30.64	37.69	25.09	36.00	27.00	39.44	24.89	39.66	29.34	32.70	29.09	34.61

Infrastructure

Imports April– September in Lakh Tonnes

Commodity	FY21	FY20	Growth
Crude oil	42.42	45.29	-6%
POL	9.43	19.04	-50%
LPG	8.66	8.04	8%
Coking coal	23.62	42.26	-44%
Steam coal	20.53	38.03	-46%
Fertiliser	11.48	10.32	11%
Raw materials	4.57	2.18	110%
Containers	15.69	21.48	-27%
Others	29.65	33.46	-11%
Total	166.05	220.1	-25%

As Visakhapatnam Port was operational 24 x 7 during the lockdown, export volumes witnessed significant growth and even surpassed last year's volumes by a huge margin. Thus, exports were the main growth drivers for the port. In particular, exports of iron ore and thermal coal grew significantly. Thermal coal, which is used in electricity generation, cement manufacturing, steel production etc., was the prime contributor. In contrast, exports of thermal coal were negligible during the same period last year. Thermal coal is largely exported to China, USA, UAE and Saudi Arabia. Exports of iron ore fines and pellets from Visakhapatnam Port increased

by 47 per cent and 16 per cent, respectively. With the steel industry returning to normalcy from June, products like iron ore, ferroalloys, scrap, refractories etc. also had an increasing trend. Iron ore is mainly exported to China, USA, UAE and Hong Kong.

The below table and the graphs depict the export trends for the first half of FY21 vs FY20.

Exports Apr - Sep In Lakh Tonnes

COMMODITY	FY 21	FY 20	GROWTH
POL	11.49	8.26	39%
IRON ORE	50.67	34.43	47%
IRON ORE (PELLETS)	36.20	31.22	16%
THERMAL COAL	4.40	0.32	1275%
CONTAINERS	25.36	23.41	8%
OTHERS	27.51	17.63	56%
TOTAL	155.63	115.27	35%

Container traffic remained strong through Q2 of 2020 with 15 per cent growth over Q1. Nepal-bound import volumes are consolidating through Vizag, while local imports are also in fast recovery mode. Exports continue to show an uptrend on the back of commodities like ferroalloys, aluminium, steel, seafood, pharmaceuticals and agricultural produce, while chemicals, scrap,

refractories, machinery and food products, like pulses and cashews, were the top commodities imported.

The overall development in Vizag and its hinterland is encouraging and warrants an increase in capacity of the existing container terminal. Therefore, the expansion project, which was stalled due to the pandemic, has now recommenced. The first phase of the quay extension is expected to be ready by March 2021. This will add 100 m to the quay, giving a total quay length of 395 m. The backup storage yard and the related infrastructure are being developed simultaneously. The extended facility will have three super post-Panamax cranes and nine RTGCs, which will be deployed for operation during financial year 2021/22 ■



Imports April– September in Lakh Tonnes

COMMODITY	APR '20	APR '19	MAY '20	MAY '19	JUN '20	JUN '19	JUL '20	JUL '19	AUG '20	AUG '19	SEP '20	SEP '19
POL	3.30	1.14	3.05	1.02	1.06	1.78	1.13	1.57	1.29	1.34	1.66	1.41
IRON ORE	5.08	5.08	4.94	6.03	5.81	5.50	12.57	7.85	10.51	6.33	11.76	3.64
IRON ORE (PELLETS)	3.01	6.21	6.57	6.76	9.25	4.93	5.91	5.88	7.09	2.35	4.37	5.09
THERMAL COAL	0.39	0.00	1.24	0.00	1.07	0.00	0.97	0.00	0.73	0.00	0.00	0.32
CONTAINERS	2.90	3.38	3.63	3.75	5.02	3.96	4.55	4.52	4.56	3.78	4.70	4.02
OTHERS	3.65	2.16	4.27	2.71	4.14	2.95	5.14	4.09	4.91	2.86	5.40	2.86
TOTAL	18.33	17.97	23.70	20.27	26.35	19.12	30.27	23.91	29.09	16.66	27.89	17.34

Agency & Services

Dealing With Crew Emergencies And Medical Evacuations The J M BAXI Way

The COVID-19 pandemic has caused unprecedented disruption to all aspects of life. It has adversely affected everyone, physically and economically. Various business verticals became paralysed. Countries declared nationwide lockdowns, imposing restrictions and incapacitating the transportation of people and materials between states or across the globe.

One community that was heavily affected was the fraternity of seafarers, who were unable to sign off after completing their sailing tenure on board a ship. Moreover, their replacements were unable to sign on. Taking due cognizance of their plight and to ensure smooth crew changes, the DG Shipping of India issued guidelines to allow crews to sign off and on at Indian ports.

J. M. Baxi & Co. was the first shipping agency to commence crew sign-offs and sign-ons with the support of various authorities, and so far, there have been more than 16,000 crew changes, despite various challenges. However, the most challenging situations at Indian ports were undertaking the emergency medical evacuations of crew members who did not have COVID-19. Each case required meticulous planning, coordination with various authorities, dealing with the threat of COVID-19 and overcoming the restrictions

imposed on the movement of people and vehicles etc. However, the JMB team, ever dedicated to ensuring seafarers' health, safety and well-being, overcame the challenges so that the sailors were all well taken care of.

A few cases are highlighted.



01 Hazira, Adani Terminal

On 14th May 2020, just a couple of hours before sailing, the master of the tanker MT Stolt Sequoia informed our Hazira branch head that the pumpman on board the vessel was complaining of severe pain in his lower abdomen. The JMB team at Hazira quickly swung into action and arranged for an initial inspection of the patient by the port doctor. The sailor was then transferred to a hospital at Surat for further investigation, where he was diagnosed with appendicitis and had to undergo surgery. Meanwhile, the vessel's sailing formalities were completed and she sailed for the next port, Mundra, with plans to come back and pick up the pumpman

a few days later, as he could not be signed off due to the lockdown restrictions and because there were no international flights. On 24th May 2020, the vessel came back to Hazira to pick up the crewman after completing her discharging operation at Mundra. With no bulk berths available, at our request Adani port authority was supportive and kind enough to allow the vessel to berth at a container berth as a very special case and the sailor embarked on the vessel.



02 Dahej

On 18th June 2020, the master of vessel Raahi requested our branch office to arrange for an Indian supernumerary to see a gynaecologist for urgent medical assistance. The terminal was not allowing outside medical attendance under its policy for COVID-19 safety. The branch team then approached the terminal marine head for permission and explained the medical emergency

Agency & Services

and the seriousness of the situation. After regular follow-ups and efforts by our team, permission to disembark the supernumerary was obtained from various authorities, including PHO Kandla, customs, the Gujarat Maritime Board and the immigration authorities. The supernumerary disembarked in compliance with all of the terminal's safety procedures. She received the required medical treatment and embarked back onto the vessel safely.



The Ratnagiri team undertook the challenging task of disembarking the mortal remains of a sailor at Jaigarh Port from the vessel MT GP Asphalt 1, which was on route to Humriyah, UAE. The death occurred on 12th July 2020, due to a fire on the vessel. The ship subsequently drifted and anchored off Devgarh. Our team received a call to assist with landing the mortal remains, a task that other agents had declined. Soon after receiving this call, our Ratnagiri office approached all authorities at JSW jetty and Angre Port for assistance and secured all necessary permissions. On 16th July 2020, the principals arranged for the tug lanpan 13 from Mumbai to visit the vessel and the mortal remains were brought to the JSW jetty. The whole operation had its tense moments but eventually, the needful was done.



A cadet on the vessel MT High Saturn at New Mangalore needed urgent medical assistance on 31 July 2020. The crew member could not be disembarked at the anchorage due to the onset of the monsoon and the rough sea conditions. Getting alongside the vessel was also not feasible. The Mangalore branch office asked the coast guard to get the cadet ashore using their own vessel. He was then taken to hospital after completing the sign-off formalities.



One of the crew of the vessel MT Gener8 Success was having difficulty in passing urine and had pain in his lower abdomen. Our branch team were contacted on 27th August 2020 with a request to land the sick sailor at Kochi anchorage. Our Kochi team immediately arranged for a tug to pick up the sick crew member and he was subsequently transported to hospital for medical treatment.

Besides the above, many COVID-19 affected seafarers have been signed off after treatment or after quarantining. Some of the sailors that came to a port to sign on were found to be COVID-19 positive, and they too were treated and quarantined prior to being sent back home or signing on to their vessel.

The courage, commitment and sheer tenacity displayed by the JMB team on the ground have been exemplary and earned much appreciation from the principals ■

Letter Of Appreciation

From: Cesar Darunday
Date: Tue, May 26, 2020
at 4:16 PM
Subject: Pumpman Cesar Darunday
To: <surat@jmbaxi.com>

Good day,

I myself just want to thank your good office and to Mr. Francis Mascarenhas and his colleague, who took care of me while I was in the hospital for 9 days and for taking care of my personal belongings. Thank you for treating me as one of your family and it helps me a lot not to worry of anything. It's hard to spend time with the person in the hospital you barely know and I'm a total stranger to them. But they did it without hesitation, not because it's their job as what I can see but because they have a good heart and they loved what they are doing. Thank you once again and God bless your good office.

Best regards,

Pmn Cesar Darunday



In Conversation

With Mr. RAMESH HARIANI, MD Of, G. R. ENGINEERING

Q: Was G.R. always in the business of manufacturing process equipment or have you been involved in other businesses as well?

Ans: The company started in 1966 manufacturing equipment, such as mixers and blenders, for pharmaceutical companies. It also manufactured Gratings and various process plant equipment. We started doing site-related jobs in the early 1980s. We can proudly say that we are now one of the few companies that assemble large processed equipment on site as well as in our factory.

Q: What was the largest package manufactured by G.R. Engineering?

Ans: We are currently producing some very large pieces of equipment on site. We recently completed a mega project at HMEL at Bathinda, for which we supplied Asia's largest column. It had a diameter of 8.7 m and an overall length of 103 m. The thickness of its walls was 80 mm. It weighed 1,761 MT and was moved by Boxco Logistics.

We are also currently doing a complete EPC job, which involves installing a cyclemax reactor regeneration package (CCR) for Kochi Refinery, which we won without having any consortium partner.

We are handling projects worth Rs 450 crores at a single location.

Q: We saw that for the HMEL Bhatinda project, G.R. set up an assembling unit in Bhatinda, where the packages were assembled and



Incorporated in 1966, G. R. Engineering has grown to become one of the largest private engineering companies in India. It has a reputation for its world-class offerings across the entire spectrum of engineering, project management and construction supervision services. It works primarily with the oil and gas, power, petrochemical, and fertiliser industries.

The company was founded by the late Shri D P Hariani, and his values, the strength of his leadership and his courage persist today under the guidance of Shri R D Hariani, MD. G.R. Engineering has been a pioneer in the growth of the Indian energy sector, by specialising in the fabrication of custom-made equipment for process industries such as:

Petrochemicals

Chemicals

Fertilisers

Refinery and oil and gas

Nuclear

G.R. Engineering established its first factory at Andheri in Mumbai and within 10 years, it had established a very large unit at Whitefield Road, Bangalore. Subsequently, a factory in Tarapur was opened in 1987, which provides equipment to all our customers.

Today, the company, under the leadership of Mr Ramesh Hariani, has grown to be one of the largest Indian companies in the process equipment manufacturing sector.

Mr Ramesh Hariani joined the company in 1977. He obtained his first degree, a BSc in mechanical engineering, from City, University of London. In 1974, he graduated with a master's in business management from the University of Bradford, Yorkshire, UK.

the final units were transported from there to Bhatinda. Do you see this happening more and more in the future?

Ans: The sizes of the equipment for HMEL Bhatinda were such that we had no option but to have an

assembly yard close to the refinery. We are currently working on a large job building a mounded storage bullet in Bangladesh. As the project requires large packages, there is no option but to assemble the final unit at the site. We have been able



In Conversation

to assure the client that we can create factory-like conditions in the open yard without compromising on quality. In the past, we have supplied various shop-fabricated items for export.

Q: What challenges were faced by G.R. during the pandemic and how did G.R. overcome them? Since G.R. provided most of the heavy-lift packages that we moved during the pandemic, we know that G.R. did manage the challenges better than the competition?

Ans: We faced many challenges during the pandemic, most of which were common to other manufacturers as well. We were able to overcome them mainly by extending our help to our workers. We assured them that we were taking maximum care of them, as their health was our first priority. However, no major incentives were offered. It was mostly done by our team through discussions and assurances that they would be taken care of if they were affected by the virus. Many workers were allowed to stay in the yard, since we could control their hygiene.

We do value the safety of our people, and hence, our health and safety procedures are stringent. We have a code of conduct for health and safety, which is strictly followed.

Q: We know that G.R. is largely focused on servicing the PSU sector in India. Is there any particular reason for this, or has the company tried exporting or working with the private sector in India?

Ans: We are focused on oil, gas and petrochemicals, and we hope to remain in this field and do more EPC jobs on a turnkey basis but within oil and gas. We see a bright future in this industry for the next 10 years ■



Logistics

BOXCO Logistics And The Oxygen Trials

Despite the challenges of the lockdown, Boxco Logistics continued throughout to meet the expectations of its customers. When possible, because of the near empty roads, the team at Boxco exploited the conditions during the lockdown to a client's advantage by increasing the speed of deliveries of heavy lifts.

The challenges of the lockdown and the measures taken to overcome them have been discussed in our previous issues. As we look back, we realise that Boxco has worked continuously. However, as the world reopens, Boxco also looks forward to returning back to what may become the new normal.

While meeting the challenges, ensuring that the work is done and putting into operation the 'forms' that were needed to fulfil the 'functions,' we see that much has changed. Project logistics has always been a team game, requiring close coordination between team members and troubleshooting visits by operations managers, which all had to change due to the social distancing norms. Managers had to manage operations through videoconferencing, and reports and instructions had to become ever more precise. The members of the operations team had to be trained to maintain the requisite distance between them and to maintain basic personal hygiene. These are among the positives from the lockdown that will become a part of the new normal.



The shortages of labour, especially equipment operators and truck drivers, were managed. However, what we had always thought of as supply chain issues for manufacturers and consumers and something far from us, also hit us in unexpected ways.

Oxygen was one such problem. All of us were breathing in more than the usual amounts of it due to the environment being cleaner. However, our port and heavy-lift operations were in real danger of being hampered due to a shortage of oxygen. This necessity for life is also necessary for securing cargoes and packages before they are transported to disparate locations, whether on axles or by barge. We had taken for granted the availability of welding consumables, which was corrected when our teams had

to scurry around to ensure we had enough oxygen cylinders, among other things, so that we could properly weld or cut plates, etc. to secure cargoes.

India has nearly 500 oxygen-producing units of various capacities situated near the industrial centres. Before the pandemic, only about 10% of the overall supply was for human use in hospitals, but the whopping demand due to the pandemic has raised this to nearly 50%, and it is still rising. As the opening up after the lockdown gathers pace, tens of millions of people are now going outdoors. Thus, the number of additional cases is currently around half a million per week, and about 6 to 7% of them will require oxygen to be administered. It was reported that in April 2020, when the pandemic had just begun in India,



Logistics

the medical consumption of oxygen was around 500 MT per day. Now, at the beginning of October 2020, it has already passed 2,800 MT per day. At the same time, with the reopening of the economy, the demand for oxygen by factories and workshops is steadily increasing. Although the Indian oxygen industry has increased capacity fourfold, mainly of medical-grade oxygen, industrial-grade oxygen is being processed to make it suitable for medical use.

Hence, something that was earlier taken for granted now requires advance planning. The norm now for major movements as we open up is to substitute welds with bolts, to calculate carefully the minimum amount of welding needed to complete the work safely and to requisition in advance even the most basic items. This takes attention to detail to a new level altogether. Going forward, we envisage that the recovery will be fast once the

pandemic is behind us. Moreover, the increasingly online and remote ways of working and the newer working systems introduced by the government, especially for customs, are some of the welcome changes that will stay.

As of now, we are trudging along, sorting out the teething issues of the new ways of working, and fixing problems due to the disruptions as they arise, with a new awareness ■



Technology

ONE Line Onboards PCS1x Using An API For eDOs

JM BAXI GROUP's Portall has announced that the ONE Line shipping agency has come on-board via an API to integrate successfully with the Port Community System (PCS1x) for the real-time transfer of electronic agent delivery orders.

The COVID-19 pandemic has brought widespread disruption, and its impact has been devastating. However, looking on the bright side, the pandemic also exposed the existing flaws and deficiencies in the system and highlighted the need to transform the supply chain models. It has become a catalyst for change in the shipping industry. Owing to the current lockdowns, more and more companies are adopting new technology and upgrading their business model, to make their networks more agile and resilient during the pandemic.

We have reached a point where all the parties in a supply chain are now digital (at some level or another), but most of them are working in their own silo. Hence, integrating via an API has become critical to their business strategies, as it improves operational efficiency. An API bridges the gap between IT systems by exposing complex services via secure encryption and authentication mechanisms. APIs serve as a communication link, processing requests and streamlining functions. Creating APIs is quick and easy.

In a supply chain, time and costs are often the biggest constraints. Some of the benefits of an API include reduced costs and fewer errors. An API integration is automated and connects multiple systems in both directions. APIs enable powerful

features, such as synchronising multiple web applications and the exchange of electronic documents. An API allows all parties to view in real time updates on tasks and to track consignments. This real-time connection makes an API so effective.

The onboarding of ONE Line was initiated with a kick-off session during which project activities and the development and testing procedures were discussed and agreed. This was followed by the sharing of relevant documentation. Once the development was complete, the eDO API and Web Module in PCS 1x system underwent rigorous user acceptance testing (UAT), which included testing and validating end-to-end business flows and all the scenarios related to an agent delivery order. The UAT was undertaken jointly by ONE Line and Portall. After the functional, integration and system testing was passed successfully in the testing environment (which is based on the production or live environment), the system was ready for deployment. Process quality was maintained throughout the onboarding process.

The implementation was conducted in phases. It went live first for JNPT. Once ONE had successfully produced live eDOs for JNPT, the UAT began for Kolkata, Haldia, Mundra and Pipavav, in turn. So far, ONE has gone live with eDOs for JNPT, Mundra, Kolkata and Haldia ports. It is currently testing the system for other ports.

With the API, an eDO created and processed in ONE's system is sent electronically to PCS 1x database and then rerouted, via APIs and emails, to the ports, CFS, ICDs,

customs, terminal operators, transporters, an empty yard and all the other stakeholders involved. As an eDO is the final piece of documentation before the cargo is released and cannot be reversed under normal circumstances, it is of utmost importance. After the API integration, the number of data transfer errors became marginal and the data transfer was more secure. The API integration sends automatic email alerts to the sender, receiver and the notify parties. A PDF copy of the eDO is attached to the emails.

Note that ONE Line will eventually move to an Invoice to eDO process via PCS1x. Thus, ONE will issue an eInvoice to the custom brokers via PCS1x. Once the eInvoice has been paid and the payment has been confirmed, ONE will issue an eDO via PCS1x.

Other shipping lines, like Omega Shipping Pvt Ltd, Evergreen Line and Samudera Shipping Line India Pvt Ltd, are now following the lead and are at various stages in developing APIs so that they can move completely to integrating with PCS1x to send eDOs.

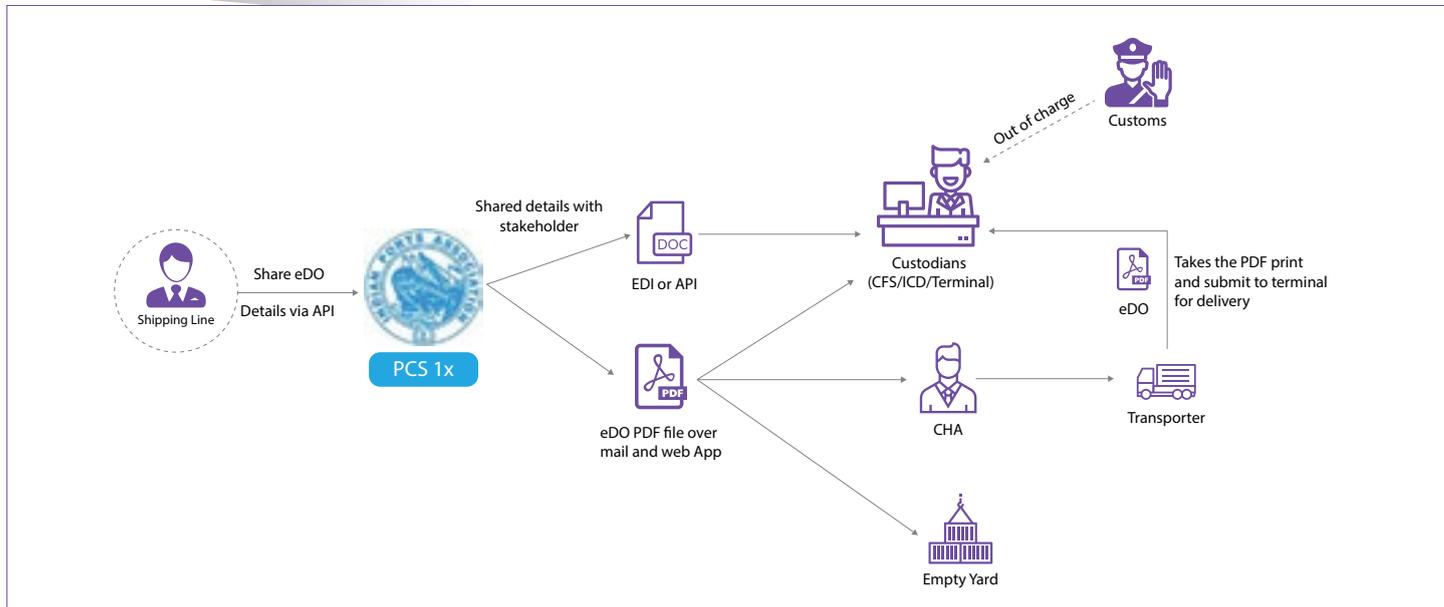
There has been continual growth in the use of APIs with PCS1x, as this eliminates manual paperwork, makes it easier to collaborate and vastly simplifies sending and receiving information. The graph below shows the number of eDOs transmitted via PCS1x over the past 6 months for all major ports in India.

An API integration is a part of the technology needed for a flexible and secure platform. Portall was the frontrunner in working with IPA to implement API-based data exchange via PCS1x.



Technology

eDo PCS1x API Integration



The number of eDOs transmitted via PCS1x

Count of eDO with PCS1x upto 04.10.2020

Port Name	MBPT	KOPT	COPT	KPL	HDC	DPT	JNPT	CHPT	MGPT	NMPT	PPT	VOC	VPT	Total
Apr-20	293	1119	0	40	147	0	1136	87	110	84	54	126	656	3852
May-20	489	2043	1	85	141	0	2055	70	211	80	79	241	586	6081
June-20	354	1546	4	15	164	0	1586	55	183	61	83	424	568	5043
Jul-20	475	1704	0	65	101	0	1433	107	192	160	68	368	714	5387
Aug-20	359	1935	0	46	142	0	1847	47	168	123	56	479	616	5818
Sep-20	283	2834	2	75	175	0	2926	28	241	129	72	370	830	7965
Oct-20	22	223	0	0	18	0	345	7	12	15	6	26	68	742
Total	2,275	11,404	7	326	888	0	11,328	401	1,117	652	418	2,034	4,038	34,888

system is heralding a new chapter of electronic trading in India. PCS1x is expected to reduce transaction costs at ports, terminals, CFS and ICDs by at least 15% and enable them to join the premier league of international technologically advanced smart ports.

Benefits

Time Savings

- Using API-based eDOs ensures that the custodians receive the necessary documents electronically and nearly instantly, thereby enabling them to act on time and reduce cargo dwell times.
- APIs send information securely and nearly in real time, which not only saves time and money but also protects against fraudulent activity through the manipulation of documents.
- Using APIs enables better monitoring of the processes.

Transactional Cost Saving

- eDOs produced via PCS1x are not charged to the users (either party) for the service rendered by PCS 1x. The same service is carried out by third party operators in the market charge for the same service.
- Thus, each online transaction is estimated to save around Rs 75-150, which results in a huge total saving. Moreover, the government needs less human resources and saves on interest payments due to the earlier settlement of funds.
- Although is not possible to quantify exactly the contribution of PCS1x, the

Environmental Impact

- There is a reduction in the carbon footprint for sending and printing eDOs.
- Using electronic documents for vessel activities instead of hard copies results in a huge saving in paper.
- On average each year, 2.5 million DOs are printed and sent, which corresponds to at least 25 lakh pieces of paper (as this does not include the waste at each stage). Thus, this is a green initiative over and above the cost savings.
- This paperless regime translates to a saving of approximately 300 trees a year ■



In Focus

Major Port Authorities Bill, 2020-A Step In The Right Direction

While the Indian port sector has over the past few years been poised at a major change with increasing privatisation, minor ports growing faster than the major ports, increasing mechanisation and automation, the need for a new Central regulatory framework was desirable keeping more in tune with the changing times.

Accordingly, the Major Port Authorities Bill, 2020 was passed by Lok Sabha on 23 September 2020. The Bill seeks to provide greater autonomy to the Major ports of India. This autonomy will empower the Ports to take individual decisions in the ever-competitive market. It also seeks to facilitate other govt. initiatives like the Sagarmala programme, lowering of logistics cost etc by providing effective legislation. It will replace the Major Port Trusts Act, 1963.

Key features of the Bill include:

The Bill Section

01

The Bill is concise with only 76 sections instead of the earlier 134 sections.

Major Port Authorities Board

02

The Bill provides for formation of a Board of Major Port Authority for each major port. These Boards will replace the existing Port Trusts. The Board will comprise of a Chairperson

and a deputy Chairperson, both of whom will be appointed by the central government. Further, it will include one member each from

- The respective State Governments
- The Railways Ministry
- The Defence Ministry
- The Customs Department
- Ministry of Shipping

The Board will also include two to four independent members, and two members representing the interests of the employees of the Major Port Authority.

Powers Of The Board

03

The Bill allows the Board to use its land, property, assets and funds as deemed fit for the development of the major port. The Board can create a Master Plan independent of any local/State Govt regulations/ Authority. The Board can enter into contracts and make rules and regulations for the operation, development and planning of the Ports. Currently, the Tariff Authority for Major Ports, established under the 1963 Act, fixes the scale of rates for assets and services available at ports. Under the Bill, the Board or committees appointed by the Board will determine these rates. They may determine rates for:

- Services that will be performed at ports
- The access to and usage of the port assets, and

- Different classes of goods and vessels, among others.

Such fixing of rates will not be with retrospective effect and must be consistent with the provisions of the Competition Act, 2002, or any other laws in force, subject to certain conditions.

Financial Powers Of The Board

04

Under the 1963 Act, the Board has to seek prior sanction of the central government to raise any loan. Under the Bill, to meet its capital and working expenditure requirements, the Board may raise loans from any:

- Scheduled bank or financial institution within India, or
- Any financial institution outside India that is compliant with all the laws.

However, for loans above 50% of its capital reserves, the Board will require prior sanction of the central government.

Public Private Partnership (PPP) Projects

05

For PPP projects, the Board may fix the tariff for the initial bidding purposes. The concessionaire will be free to fix the actual tariffs based on market conditions, and other conditions as may be notified. The revenue share in such projects will be on the basis of the specific concession agreement.

In Focus

Adjudicatory Board

06

The Bill, further, provides for the constitution of an Adjudicatory Board by the central government. Functions of the Adjudicatory Board will include:

- ❖ Certain functions being carried out by the Tariff Authority for Major Ports, other than tariff setting
- ❖ Adjudicating on disputes or claims related to rights and obligations of major ports and PPP concessionaires
- ❖ Reviewing stressed PPP projects.

An important feature of the Bill is the proposal to abolish TAMP and empower Major Ports and the PPP Operators to fix market-based tariffs. This will give flexibility to

PPP Operators in levying tariffs. The experience under a regulatory regime has shown that many of the PPP projects have suffered from lack of viability and are on the verge of becoming stressed projects. In the absence of a level playing field, PPP Operators are also unable to compete with private ports which enjoy full tariff freedom as a result of which lot of cargo of Major Ports is getting diverted to private ports. Giving freedom to PPP Operators to charge prices according to commercially and financially sound principles is a prerequisite for the success of privatization policy.

Another important feature is setting of an Adjudicatory Board which, inter alia, will have powers to appraise, review the stressed PPP projects and to suggest measures to revive such projects. This mechanism will provide a judicial forum for finding resolution to such issues.

Unfortunately, the composition of the Board does not specifically include any representation to vital stakeholders and professionals from the Trade, Shipping Lines and Terminal Operators. The Bill, probably, also should have provided for an enabling provision for corporatisation of Major Ports which is an essential step in bringing in complete professionalism in managing the Ports to enable them to compete effectively with Non-Major Ports and Foreign Ports.

Having said that, the Bill is a welcome step in the right direction and will bring in faster decision making, more professionalism and greater autonomy to the Port sector in India, leading to greater transparency, lower transaction costs and quality infrastructure ■



Weights & Measure

Palm Oil And Atmanirbhar Bharat

India is a net food exporting country but depends heavily on imports of edible oils. India consumes nearly 23 million tonnes of edible oil annually whereas produces only 7-8 million tonnes which means imports almost 14-15 million tonnes annually i.e. 68% of the edible oil requirement is met through imports. The bulk of these imports are palm oil. Of the total imports of edible oil, palm oil accounts for 60 per cent or about 9 million. Edible oils are imported from countries such as Indonesia, Malaysia, Argentina, Ukraine, Russia, UAE, etc.

India's Imports of Edible oil			
Edible Oil	2017-18	2018-19	2019-20 (Nov – Sep) Qty in MT
Palm Oil	8.7	9.4	6.4
Sunflower Oil	2.5	2.4	2.3
Soybean Oil	3.0	3.1	3.1

Source: Solvent extraction Association of India

According to the industry experts demand for palm oil is expected to double by 2030, which cannot be sustained just by increasing the import quantity, as it would be exporting its biodiversity issues to the supplying countries. Considering this Prime Minister Shri Narendra Modi has announced Atmanirbhar Bharat in Palm oils and therefore to expand oil palm cultivation in India.

Significance of Palm Oil

Palm oil holds the significance in the edible oil as it is the highest oil yielding perennial crop. With good planting material, irrigation and proper management, oil palm has the potential to produce 20-25 MT fresh fruit bunches (FFB) per

hectare after attaining the age of 5 years. This in turn can yield 4-5 MT of palm oil and 0.4-0.5 MT palm kernel oil (PKO). This perennial crop has an economic life span of 30 years, comprising three distinct phases viz. juvenile period (1-3 years), stabilizing period (4-8 years) and stabilized period (9-30 years). Five countries mainly Indonesia, Malaysia, Nigeria, Thailand, and Cambodia account for over 90% of the world's total production of FFBs.

Palm oil is currently the world's most consumed vegetable oil, with its main consumers being India, China, and European Union (EU). Besides food, palm oil is widely used in other commodities such as detergents, plastics, cosmetics, and biofuels. Thus, profits from palm oil have attracted many industrial-scale palm oils producing companies, both regional and international.

Potential area of Oil Palm in India

India's oil palm Plantations (Crop year 2018-19)	
States	Area in Hectares
Andhra Pradesh	162,689
Karnataka	43,517
Orissa	21,777
Tamil Nadu	30,900
Telangana	18,312
Gujarat	5,797
Kerala	5,785
Chhattisgarh	4,222
Andaman Nicobar Island	1,593
Maharashtra	1,474
Goa	953
Northeastern India	34,063

Department of Agriculture has identified 19.33 lakh ha area suitable for oil palm cultivation in the country including 2.18 lakh ha area in the North Eastern States. Potential states were Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Karnataka, Kerala, Mizoram, Odisha and Tamil Nadu.

In 2014, the federal government launched the National Mission on Oilseeds and Oil Palm (NMOOP), with a special emphasis on expanding palm oil plantations in watersheds and wastelands. NMOOP started promoting plantations in 13 states, with financial incentives given to planters to buy plants and maintain them for four years. As a result, oil palm plantations grew from 8 thousand ha in 1991-92 to 3.3 lakh ha today.

Despite the efforts, production reached just a quarter of a million tonnes in 2018-19 against domestic demand of over 10 million tonnes. Currently, a number of large Indian companies including ITC, Godrej Agrovet, and Ruchi Soya, are engaged in oil palm cultivation in India. Many of their plantations are in collaboration with provincial governments, particularly in the southern states of Andhra Pradesh, Telangana, Karnataka and Tamil Nadu.

To overcome fears about deforestation, domestic palm oil producers say production in India is focused in coastal states like Telangana and Andhra Pradesh, where expansion is taking place in already degraded land or areas that



Weights & Measure

were until then being used for water-hungry cash crops like cotton and paddy.

NMOOP's latest target was to bring an additional 105,000 ha under oil palm cultivation by the year ending October 2020, bringing the total area under cultivation to 420,000 ha.

Constraints in Oil Palm cultivation

- * Oil palm has a long gestation period and restricts income flow to farmers for at least 4-5 years.
- * Small holdings of farmers with limited resources.
- * Fluctuation in prices of CPO in the international market.
- * Erratic monsoon leading to shortage of water.
- * Competition from other economically viable crops such as rubber, arecanut, sugarcane, banana, coconut etc.
- * Variation in import duty on edible oils.

Initiatives by Government of India

- 🏛️ During the 12th Five Year Plan, a new National Mission on Oilseeds and Oil Palm (NMOOP) was launched under which Mini Mission - II (MM - II) was dedicated to oil palm area expansion and productivity increases.
- 🏛️ The funds were made available to the states as per norms of NMOOP. The expenditure will be shared between Central and State Government in the ratio of 90:10 for Assam, Arunachal Pradesh, Nagaland and Mizoram and 60:40 for remaining States.
- 🏛️ However, 100% support is being provided to Indian Institute of Oil

Palm Research (IIOPR), Pedavegi, Andhra Pradesh for supply of planting materials, need based R&D and extension activities.

- 🏛️ Under the MM-II of NMOOP, financial assistance is being provided to the farmers @ 85% cost of the planting material (Rs. 12000/- per ha) and @ 50% cost of the other components like maintenance cost of new plantations for four years (Rs. 20000/- per ha), inputs for inter-cropping in oil palm during gestation period (Rs. 20000/- per ha), installation of drip - irrigation systems, diesel/electric pump-sets, bore-well (Rs. 50000/- per unit), water harvesting structures/ponds, construction of vermi-compost units and purchasing of machinery & tools etc.

Involvement of Private entrepreneurs

States Governments have involved about 15 nos. of private entrepreneurs in which majors are M/s Godrej Agrovet Pvt. Ltd., M/s Ruchi Soya Industries, M/s Food Fats & Fertilizers and M/s Shivasais Oil Palm Ltd. for developing of oil palm seedlings nurseries and processing mills in their respective States. These entrepreneurs are involved by the State Government in their respective States by inviting the Expression of Interest (EOI). These companies have signed Memorandum of Understanding (MoU) with the State Governments for development of oil palm in the country. After signing of MoU, the State Governments have allotted area/ Mandals/Districts to the companies for new plantations. Accordingly, the companies have established nurseries in their allotted zone for developing seedling of oil palm, which takes about 10-12

months. These companies are also extending technical expertise to the farmers for development of oil palm plantation. After development of plantation, oil palm mills are also established by these companies. Government of India has also provided financial support for establishment of oil palm processing mill especially in NE/LW areas/hilly states/regions. In the country, 24 nos. Oil Palm Processing Mills have been established in different states having capacity of 312 MT/hrs for crushing of FFBS of oil palm.

If India follows corporate farming model over the existing smallholder farming and declare palm as a plantation crop on the lines of tea plantation we can overcome two major challenges, the opportunity cost of land of farmers during a long gestation period of at least 3 years when no financial income flows to farmers and high cost of irrigation.

If we have to leap-frog in oil palm cultivation, we have to find a way to break these two barriers. Keeping in mind the advantages it can bring about in terms of reducing heavy dependence on imports for key edible supplies, and augmenting farmers' incomes within the country, an additional 16 lakh hectares of area (the difference between identified potential area and the actual area under palm oil) be expeditiously brought under palm oil cultivation by scaling up incentives in a big way. These 16 lakh hectares under oil palm cultivation would produce 6.4 million MT of palm oil, which could result in savings of huge foreign exchange. Unintentionally by importing palm oil from Indonesia and Malaysia India is helping farmers of the supplying country rather if India empowers our own farmer, it will be another decisive step towards Atmanirbhar Bharat ■

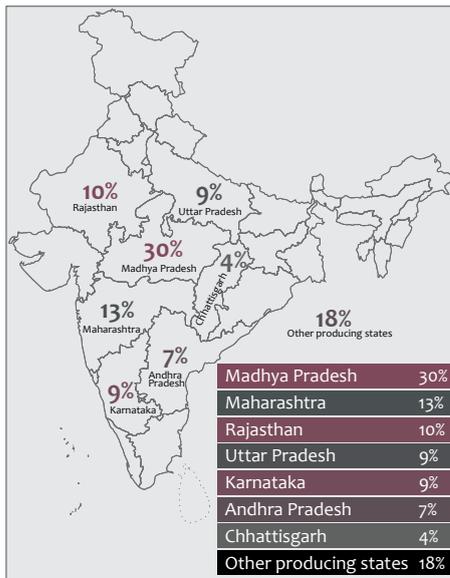


Weights & Measure

INDIA Pulses Outlook

India is the largest producer of pulses, accounting for 25% of global production. Pulses are a major source of protein for a majority of Indians. Pulses and pulse crop residues are also major sources of high-quality livestock feed in India. As India's middle class continues to grow, so does its demand for pulses and other proteins.

Areas Of Cultivation

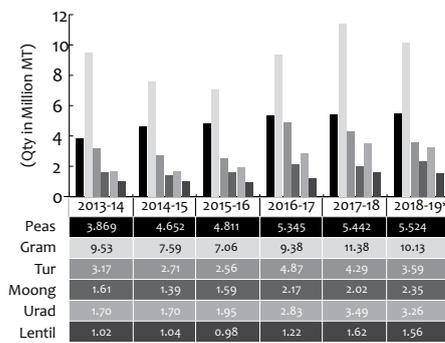


The main regions with high productivity are Madhya Pradesh (30%), Maharashtra (13%), Rajasthan (10%), Uttar Pradesh (9%), Karnataka (9%), Andhra Pradesh (7%), Chhattisgarh (4%) & other producing states (18%)

Domestic Production Of Pulses

Major pulses grown are Chickpeas-gram (38%), Peas (21%), Tur (14%), Urad (12%), Moong (9%), Lentil-Masur (6%).

Fig 1: Domestic Production of Major Pulses during past 5 yrs



Major Pulses Statistics - Marketing Year (March To February)

Particulars	2019-20 (In Lakh MT)					Total
	Urad	Moong	Tur	Chana	Masur	
Opening Stock	8.75	5.52	7.87	18.22	2.84	43.20
Production	19.17	18.40	37.19	101.00	13.50	189.26
Imports	2.25	1.50	4.00	3.00	5.50	16.25
Total Supply	30.17	25.42	49.06	122.22	21.84	248.71
Consumption	28.00	21.50	42.00	99.50	19.00	210.00
Exports	0.20	0.75	0.25	1.00	0.20	2.40
Closing Stock	1.97	3.17	6.81	21.72	2.64	36.31

Pulses Imports

India despite its indigenous production, remains a net importer of pulses because of high and continuously growing consumption that exceeds domestic production, creating a growing supply-demand gap. The country imports huge quantities of Yellow Pea.

Historical Import figures are as per below:

Pulses	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
IMPORTS (In Thousand Tonnes)						
Peas	1330.4	1952	2245.4	3172.8	2877	719.5
Chickpea	276.1	418.9	1031.5	1080.6	981.3	164.9
Moongbean	624.2	622.9	581.6	574.5	347	515.9
Lentil	708.7	816.5	1260.2	829.4	796.6	218.3
Pigeonpea	465.8	575.2	462.7	703.5	413	489.05
Total	3654.7	4584.8	5797.7	6609.4	5607.5	2103.36

India had allowed the duty-free import of pulses after a drought in 2014 and 2015 and imported a record 6.6 mt of pulses in 2016-17.

Major Import Sources

Pulses	Top 5 Import Sources
Peas	Canada (39.1%), Ukraine (20.4%), Russia (16.3%), Lithuania (5.5%), Netherland (4.2%)
Chickpeas	Sudan (31.9%), Myanmar (20.2%), Tanzania (18.9%), Ethiopia (5.8%), USA (4.5%)
Moong/Urad	Myanmar (80.3%), Kenya (4.9%), Mozambique (2.9%), Australia (2.3%), Tanzania (2.0%)
Lentils	Canada (81.8%), Australia (6.2%), USA (4.2%), Netherland (4.2%), Singapore (2.6%)
Pigeon Peas	Mozambique (44.2%), Myanmar (30.2%), Tanzania (14.0%), Malawi (5.5%), Sudan (5.2%)

Major Pulses Mandies

Below are the important domestic trading markets for pulses in India:

Major Pulses	Mandies
Chickpeas	Delhi
	Indore
	Bikaner
Lentil	Kanpur
	Patna
	Indore
Tur	Gulbarga
	Indore
	Kanpur
	Amravati
Urad	Vijayawada
	Jalgaon
	Jaipur
Moong	Vijayawada
	Jaipur

Exports

All varieties of pulses, including organic pulses, have been made 'free' for export without any

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quantitative ceilings w.e.f. 22nd November, 2017.

Chickpeas contribute the single largest share in India's export basket of pulses registering 70.92% and 80.02% share in the total pulses export during 2017-18 and 2018-19 respectively.

HS Code	Pulses/Year	2017-18	% Share in Total Pulses Export	2018-19	% Share in Total Pulses Export
7131000	Peas (Matar)	4.44	2.47	2.06	0.72
7132000	Chickpeas (Chana)	127.2	70.92	228.72	80.02
7133100	Moong/ Urad	16.75	9.33	18.77	6.56
7134000	Lentils (Masur)	11.20	6.24	13.96	4.88
7136000	Pigeon Peas (Tur)	10.54	5.87	9.34	3.26
Total Pulses Exports		179.36		285.83	

The country has exported 2.36 lakh MT of pulses worth of Rs.1,534 crores during 2019-20.

Major Export Destinations

Pulses	Top 5 Export Destinations
Peas	Sri Lanka (48.5%), Nepal (12.6%), U S A (11.1%), Australia (4.1%), Qatar (3.3%)
Chickpeas	Algeria (20.8%), UAE(9.8%), Sri Lanka (8.4%) Turkey (6.9%), Morocco (5.4%)
Moong/ Urad	USA (37.7%), UK (12.4%), Canada (12.3%), Nepal (8.3%), Qatar (5.9%)
Lentils	Bangladesh (48.5%), Qatar (12.0%), Sri Lanka (10.2%), USA (7.8%), Nepal (4.5%)
Pigeon Peas	USA (57.8%), Canada (15.7%), UAE (6.8%), Australia (3.4%), Singapore (2.6%)

Trade Policy

In the recent years, the country has shifted its approach from import-

led to achieving domestic self-sufficiency of production.

Generally, Import of all varieties of pulses is free without any quantitative restrictions under Open General License; however to protect the farmers from cheap imports, Quantitative Restrictions had been imposed on import of Tur to the tune of 4 lakh MT/year and on import of each Peas, Moong & Urad respectively to the tune of 1.5 lakh MT/year in 2019-20.

As for fiscal year 2020-21 the Government has announced annual quota for imports to be allowed only to the Millers/Refiners as per below:

Restricted Item	Quota
Yellow Peas	1.5 lakh MT
Green Peas	
Tur/Pigeon Peas	4 Lakh MT
Others	1.5 Lakh MT

Beyond quantitative restrictions Govt. in a move to boost domestic availability of crops that face shortfall in domestic supply like Lentils, had reduced the import duty from 50% to 30% for shipments arriving during the period 02nd June, 2020 to 31st August, 2020 except for crop originating from USA. The duty was further brought down to 10% for the period from 18.09.2020 to 31.10.2020.

Boxco Logistics a division of J M BAXI GROUP, handled a vessel carrying imported Lentils in bulk ~ 19,072 MT at Kandla Port in the month of August, 2020 arriving from Canada. The cargo was bagged in 50kg bags and dispatched to various markets like Kanpur, Delhi, Indore, Patna, Jaipur, Bhiwandi etc.

Fumigation - India

Fumigation is an approved treatment method extensively used for controlling pest infestation in agricultural products in many countries of the world.

In India methyl bromide fumigation is acknowledged though it has potential negative impact on environment, yet so far it is considered as the most appropriate treatment method in eradication of pest infestation in plants and plant products. In view of its effectiveness on all life stages of insect-pests, the use of methyl bromide is allowed for pre-shipment treatments by Plant Quarantine Division - India.

Any import consignments to India that do not undergo fumigation at load port (due to discontinuance of Methyl Bromide for phytosanitary measures as per the policy of the exporting country) are given relaxations and must compulsorily undergo fumigation at discharge port with 4 times the normal plant quarantine inspection charges levied on the importer.

Future Imports - India

As per trade estimates that there was a 10% reduction in total production of 2.30 MMT target for pulses as set by the government in 2019-20 (July-June).

Therefore, in a move to curb domestic prices in India, the trade body (Indian Pulses and Grains Association) estimates an import volume of approx. 2.3 MMT in 2020-21 which would include the quantity of pulses covered under Quantitative Restrictions and 1 MMT of red lentils, 0.4 MT of Urad, 0.2 MT of red kidney beans and white chickpea ■



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INDIAN Auto Sector – Road To Recovery Post Pandemic

The reverse gear of the Indian auto industry came immediately after the government declared a nationwide lockdown on March 24, 2020 to contain the spread of COVID-19. SIAM declared that the plant closure of auto original equipment manufacturers and component manufacturers has led to a loss of INR 2,300 crore per day. Indian Auto sector was facing difficult year even before the outbreak. Auto sales had been tepid for 12 to 15 months. The switch from Bharat Stage 4 (BS4) to Bharat Stage 6 (BS6) emission norms has also added to the woes of the sector as BS6 was to be implemented from April 1, 2020. This brought in long-term problems to the automobile industry from both manufacturing end to sales point such as research and development, technological upgradation and closing of plants to stop piling up of old inventory. As new BS6 vehicles were few in the market and the switch to BS6 saw the overall demand sales of BS4 vehicles drop, this led to an increase in inventory of old (BS4) vehicles both in two-wheeler and four-wheeler segments.

Hence many automobile plants of leading players were closed for few days to halt production, which led to loss of jobs of the contractual workforce. Macroeconomic issues that added to this crisis include the decline in demand/consumption both from the rural and urban markets, and a liquidity crunch in the financial markets.

Indian Auto Sector Exports (Apr-Jun 2020)		
Major Players	Exports (Units)	Y-o-Y Change in %
Hyundai Motors	12,688	-74.73%
Maruti Suzuki	9,410	-65%
Kia Motors	5,395	-84%
Ford India	5,209	-84.53%
Volkswagen India	4,154	-77.56%
General Motors	3,186	-84.06%
Nissan India	2,127	-80.92%
Mahindra & Mahindra's (M&M)	896	-79.73%

The Indian Automobile Industry is the fourth largest in the world with an annual turnover of \$100 billion and employs 32 million people. The two-wheeler industry in India is the largest in the world. India is also the largest tractor manufacturer and the eight largest commercial vehicles manufacturer in the world. The automobile sector currently contributes about 7.1 per cent of overall GDP. The sector contributes approximately 13 per cent of excise revenue to the government. In 2018-19, 4.06 million cars were manufactured and at present around 32 million cars run on Indian streets. The two-wheeler segment dominates the industry with a share of 80 per cent. As India battles its worst pandemic crisis, there is huge toll on the automobile industry. The initial estimates were scary, but the recovery of the sector is more than expected with some timely government intervention.

The New Normal for The Auto Sector

Preference For Personal Mobility

The pandemic has brought about marked changes in consumer habits and behaviours. There is likely to be a shift away from shared mobility options as people prioritise social distancing and personal hygiene. This would effectively translate into a higher preference for affordable personal mobility, which could boost sales for auto manufacturers, especially in the entry-level vehicle's category. A similar trend was witnessed when the lockdown ended in China, where car ownership gained traction vis-a-vis car-hailing and sharing. India is expected to follow a similar path, which could help reverse the declining sales trend in the automotive sector.

The outbreak, however, has also greatly strained personal finances

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with significant job losses across sectors. As a result, the consumer's financial ability to purchase new cars might be constrained. The automotive sector will have to devise innovative purchase/leasing schemes to drive automotive sales. As new cars may be unaffordable for certain sections of the population, the two-wheeler and organised used car market might also stand to gain.

Going Digital The increasing preference for contact-less online transactions has emerged as a major trend and is expected to reflect in automotive purchases as well. There was already a shift towards online models in after-sales with increases in online booking of appointments, doorstep pickup/delivery and online payments. Several original equipment manufacturers (OEMs), both premium and mass market, have already recognised this trend and launched a complete online buying experience[2], starting from initial enquiries and customisation of features, to booking, financing and delivery in a completely contact-less transaction. Even test drives are today offered at the customer's doorstep, thereby eliminating the need to visit a showroom.

Online Marketing Traditional marketing events, such as auto shows and exhibitions, will take a backseat for some time with social distancing being the norm. Going forward, digital media platforms likely will be the gainers.

Innovating With New Features In adapting to the post COVID-19 world, several consumers will look for better health, hygiene and sanitation features in their vehicles. Certain features like in-built sanitisation, enhanced air-purification systems and anti-bacterial surfaces may see a spike in demand. Consumers are likely to lean towards cars that offer

such features and might even be willing to pay extra for their own physical and mental wellbeing.

Auto Component Industry

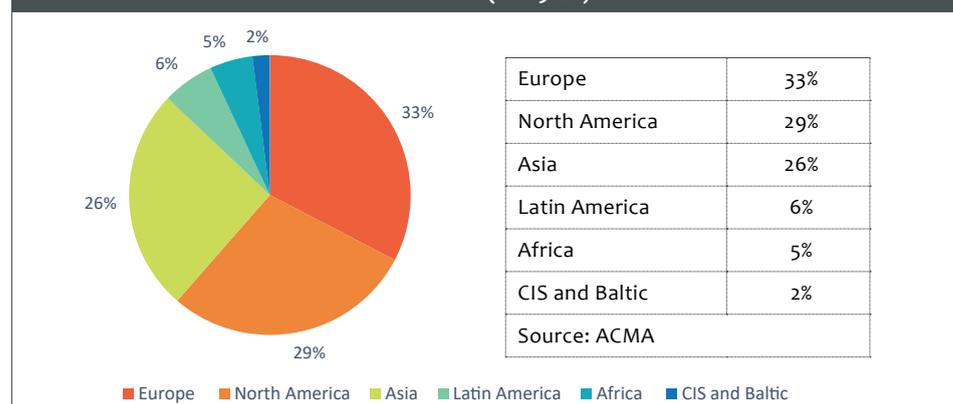
With automobile industry sales estimated to fall by about one-fifth in the current fiscal year, revenues of the auto component industry may also shrink. Noticeably revenues of auto component manufacturers aren't falling at the same rate as automobile manufacturers. Exports and replacement sales, which together generate almost half of the industry's revenue, are withstanding the downturn better. Battery and Tyre manufacturing segment is expected to recover sooner than other segments in the Auto industry. Replacement volumes to grow at 14% for 2 wheelers and 6% for other vehicles.

Exports remains key focus in the ancillaries with Europe and North America being the major destination. Both countries had suffered during COVID-19 but gradually expects that demand for this segment to come back. Overall, 50 % of exports are in the area of engine, transmission & steering parts and high growth areas in the recent years includes electrical and electronics items.

Imports A huge chunk of Indian auto component imports, an estimated worth USD 4.5 billion comes from China. A whopping 27 percent of the automotive parts are manufactured in China and imported to India. India imports a wide array of automotive parts, spanning various vehicle types from China. Crucial automotive parts like fuel injection pumps, Egr modules, electronic components, turbochargers, airbag components, etc are the key non-domestic commodities that can limit the further production of commercial vehicles, passenger vehicles, and two-wheelers, The deadly outbreak has rendered the Chinese factories ineffectual, which in turn has brought the Indian automotive industry to a halt. The solution, it seems, is to switch to alternate suppliers outside of China, formulate an action plan to acquire multiple vendors on a global scale, rather than limiting imports from one region entirely.

However, there will be subdued demand for FY 20-21. Revenue of auto ancillaries, except tyre segment, to drop by 16-20 per cent which will further show strong growth during FY 22. With the sequential pick-up in production across all automotive segments and the gradual opening of export markets, capacity utilisation for most auto component players will be close to 60 -65 %.

Share of Indian export of auto components and their destination countries (FY 19-20)



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Post-Covid mindset It is hardly surprising that two-wheelers are among those motorised transport forms leading the way. It's largely the rural areas that are pushing up sales for now. Hero Motocorp, the market leader, sold 4,50,774 vehicles in June. That was 26 per cent down from sales of over 6,00,000 in June 2019, but everyone is heaving sighs of relief that it wasn't worse. Other two-wheeler companies like TVS and Bajaj Auto have posted similar results, with the June domestic sales down by 26 per cent year-over-year for Bajaj and 36 per cent for TVS. Caution is the watchword in the pandemic era, and with the desire of many to avoid crowded public transport, everyone is hoping that that two-wheelers will be back on the road quickly.

A similar scenario is playing out for smaller automobiles, which have suddenly become hot favourites, mainly in rural areas. In the future, too, though, the mini and compact segments are expected to see interest even from urban customers — again because anyone who plans to return to office has realised public transit is a no-go for the foreseeable future. Companies which don't offer small cars have taken a harder hit. For Mahindra, however, the Bolero has done well.

Another big winner is the light commercial vehicle (LCVs) segment. Sales of LCVs are being driven almost entirely by the booming e-commerce industry, which needs to get goods from its godowns to the sheltering customers. There is another segment who performed extremely well i.e., Tractor segment manufacturers like Mahindra and Escorts. Mahindra, the market leader, actually saw year-on-year domestic sales rise 12 per cent in June. The company called this its second-best performance ever, and attributed it to the good rabi crop combined with a strong South-West Monsoon.

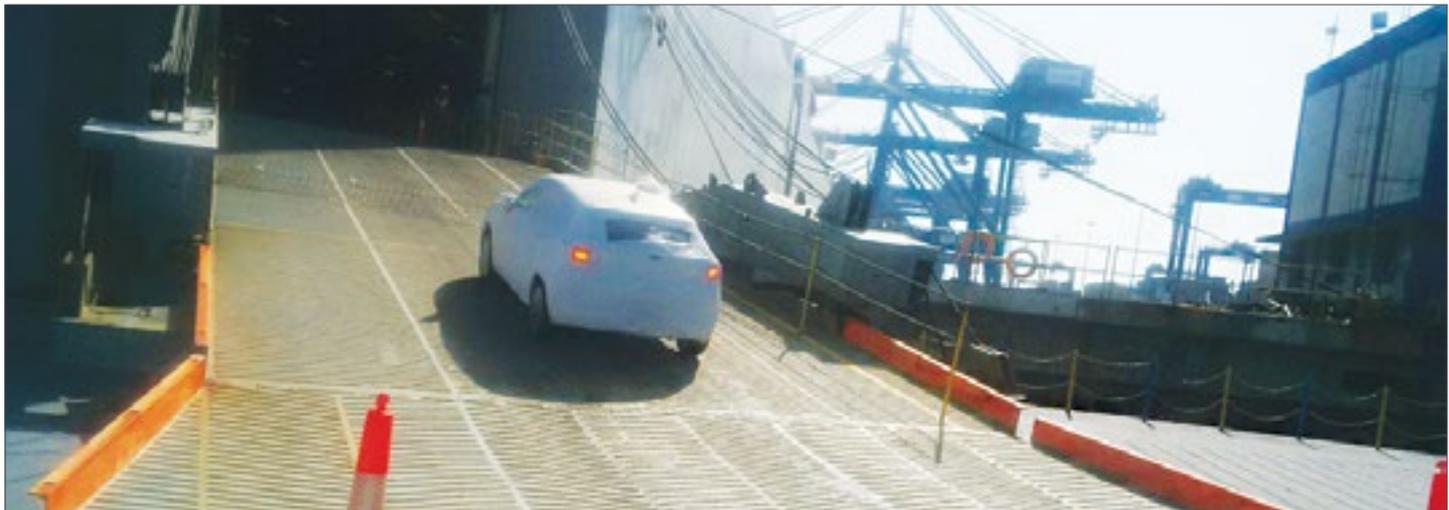
Struggle ahead All the auto companies are grappling with getting suppliers back online and ensuring that their retail showrooms are able to open once again. Most companies, because of social distancing rules, are running one or two shifts, and are only just looking at running a full three shifts.

Indian carmakers suggested several steps to revive the industry, like a temporary tax cut on cars, trucks and motorbikes as well as incentives to scrap old vehicles. SIAM had said that carmakers want a temporary, 10% cut in tax on the sale of all automobiles and auto parts and incentives, in the form of tax

rebates, for car owners to scrap their old vehicles.

While Minister of Road Transport and Highways Nitin Gadkari has assured a vehicle scrappage policy for India soon. In the simplest of terms, the vehicle scrappage policy takes aim at old polluting vehicles on Indian roads and looks at confining them to the scrapyards. With resale value of vehicles beyond 15 years being extremely low, these vehicles can be sent to scrapyards with some sort of monetary compensation to owners which could ensure two benefits - incentive for owners to get rid of such vehicles and putting these polluting vehicles out to help the environment. There could, however, be other equally important benefits like such owners then going to the market for new vehicles which could boost demand and re-using the scrap materials like steel and aluminium for manufacturing new vehicles.

In conclusion The easing of lockdowns offers hope that the automotive sector will soon set a course for recovery. This will be a testing time for the sector and the recovery trajectory will depend on how well manufacturers and retailers are able to respond to challenges and adapt to the evolving trends in the post COVID-19 world ■



Port Statistics

SHIPPING & CARGO PERFORMANCE

QUARTERLY UPDATES ON INDIAN MAJOR & MINOR PORTS (QTY IN MILLION TONNES)
JULY - SEPTEMBER (IInd QUARTER) 2020 - 2021 / JULY - SEPTEMBER 2019 (IInd QUARTER) 2019 - 2020

AGRICULTURAL PRODUCTS & EXTRACTIONS

	SUGAR		RICE		SOYA BEAN MEAL		RAPE SEED MEAL		COPRA EXPELLER CAKE	
	II nd Qtr'20	II nd Qtr'19								
No of Ships Called	54	31	27	20	0	4	4	1	8	12
Total Cargo handled	1.560	1.057	0.500	0.178	0.000	0.067	0.151	0.030	0.071	0.072
Import	0.516	0.502	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.072
Export	1.043	0.555	0.500	0.178	0.000	0.067	0.151	0.030	0.000	0.000

FINISHED FERTILIZERS & FERTILIZER RAW MATERIALS

	UREA		SULPHUR		ROCK PHOSPHATE		DAP		MOP	
	II nd Qtr'20	II nd Qtr'19								
No of Ships Called	68	48	17	18	51	38	58	36	55	29
Total Cargo handled	2.843	2.327	0.544	0.568	1.867	1.550	2.475	1.517	1.749	0.777
Import	2.793	2.327	0.344	0.354	1.867	1.550	2.475	1.517	1.749	0.777
Export	0.050	0.000	0.200	0.214	0.000	0.000	0.000	0.000	0.000	0.000

COAL AND COKE

	NON COKING COAL		COKING COAL		MET COKE		PET COKE		OTR GRADES OF COKE	
	II nd Qtr'20	II nd Qtr'19								
No of Ships Called	627	674	247	276	9	15	53	54	19	16
Total Cargo handled	44.646	47.449	13.268	13.977	0.356	0.536	2.248	2.147	0.658	0.351
Import	39.821	41.891	13.117	13.609	0.356	0.536	2.113	1.873	0.638	0.283
Export	4.825	5.559	0.151	0.368	0.000	0.000	0.136	0.274	0.020	0.068

OTHER BULK & BREAK BULK CARGO

	CEMENT		MINERALS		IRON ORE		STEEL PRODUCTS & PROJECT CARGO		GRANITE	
	II nd Qtr'20	II nd Qtr'19	II nd Qtr'20	II nd Qtr'19	II nd Qtr'20	II nd Qtr'19	II nd Qtr'20	II nd Qtr'19	II nd Qtr'20	II nd Qtr'19
No of Ships Called	107	107	332	353	498	365	413	422	67	53
Total Cargo handled	1.687	1.968	12.350	12.932	23.988	18.174	5.781	4.294	1.422	0.923
Import	0.693	0.988	8.163	8.596	5.927	4.491	0.855	2.178	0.000	0.005
Export	0.994	0.980	4.187	4.335	18.062	13.683	4.926	2.115	1.422	0.918

LIQUID CARGOS AND LIQUIFIED GASES

	CRUDE OIL & OIL PRD		CHEMICALS		EDIBLE OIL & MOLASSES		ACIDS		LIQUIFIED GASES	
	II nd Qtr'20	II nd Qtr'19								
No of Ships Called	1192	1360	672	710	343	351	188	143	436	404
Total Cargo handled	71.004	87.764	6.285	7.147	4.412	4.368	2.241	1.760	13.196	10.026
Import	53.352	65.230	3.590	4.383	4.191	4.161	2.182	1.728	12.703	9.903
Export	17.652	22.535	2.695	2.764	0.221	0.207	0.059	0.032	0.493	0.123

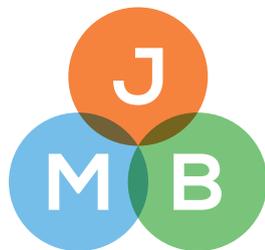
INDIAN PORT PERFORMANCE - Q2 & FY 2020 - 21 THROUGHPUT (QTY IN MILLION TONNES)

JULY - SEPTEMBER 2020 (IInd QUARTER) 2020 - 2021 / JULY - SEPTEMBER 2019 (IInd QUARTER) 2019 - 2020 (QTY IN MT)

Ports	Types of Ports	NO. OF SHIPS		LIQUID CARGO		BULK CARGO		CONTAINERS (TEUS)		TOTAL CARGO *	
		II nd Qtr'20	II nd Qtr'19								
KANDLA	■	662	545	4.313	4.064	7.322	5.985	131,424	99,085	11.635	10.049
MUMBAI	■	349	430	5.683	8.056	0.790	1.357	-	-	6.474	9.413
JNPT	■	180	179	1.476	1.600	0.135	0.183	1,159,956	1,266,036	1.610	1.783
MORMUGAO	■	87	113	0.093	0.199	2.810	2.684	-	-	2.903	2.883
MANGALORE	■	308	287	4.612	5.208	2.002	2.160	-	-	6.614	7.368
COCHIN	■	214	133	3.863	5.670	0.385	0.347	168,663	1,60,456	4.248	6.017
TUTICORIN	■	308	185	0.346	0.527	4.375	4.132	203,618	225,441	4.721	4.659
CHENNAI	■	167	178	2.397	3.375	1.516	0.969	372,095	363,911	3.913	4.344
ENNORE	■	153	163	1.125	1.114	3.821	3.191	29,870	31,583	4.946	4.305
VISAKHAPATNAM	■	535	478	4.131	4.237	10.856	10.060	131,690	134,382	14.987	14.297
PARADIP	■	483	477	6.418	10.288	17.339	16.828	-	-	23.756	27.117
HALDIA	■	481	505	3.685	3.591	5.710	6.032	42,240	46,330	9.395	9.623
KOLKATA	■	43	28	0.140	0.311	0.026	0.023	157,303	176,284	0.166	0.335
GANGAVARAM	■	131	100	0.000	0.000	7.410	6.522	-	-	7.410	6.522
PIPAVAV	■	121	124	0.156	0.237	2.023	1.782	182,620	223,637	2.179	2.019
MUNDRA	■	753	673	6.860	5.207	10.157	9.900	1,318,427	1,216,421	17.017	15.107
DAHEJ	■	173	174	6.526	6.380	2.030	1.973	-	-	8.556	8.353
HAZIRA	■	269	164	2.124	0.924	6.004	2.428	164,759	156,984	8.127	3.352
NAVLAKHI	■	37	35	0.000	0.000	1.939	2.762	-	-	1.939	2.762
KAKINADA	■	205	118	0.737	0.535	2.707	2.421	7,404	7,096	3.444	2.956
SIKKA	■	368	388	29.016	32.020	0.000	0.000	-	-	29.016	32.020
VADINAR	■	128	153	12.068	15.860	0.000	0.000	-	-	12.068	15.860
KRISHNAPATNAM	■	198	197	0.446	0.490	7.036	8.903	99,351	1,37,544	7.482	9.393
KATTUPALLI	■	11	0	0.005	0.000	0.063	0.000	149,919	180,814	0.067	0.000
BHOGAT	■	1	3	0.093	0.249	0.000	0.000	-	-	0.093	0.249
Total Vessel Calls at all ports		6,365	5,830	96.311	110.143	96.458	90.642	4,319,339	4,120,908	192.770	200.786

■ Major Port ■ Non-Major Port

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



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