

J. M. BAXI GROUP

TIDINGS

ISSUE XXIX

APRIL - JUNE 2020



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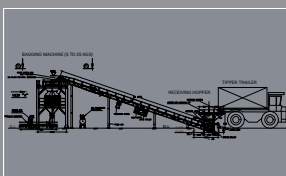
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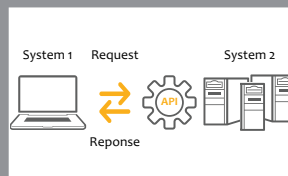
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From the Quarter Deck

Dear Friends & Colleagues, As would be expected in most publications such as our “Tidings”, undoubtedly the headlines and comments will mainly be about COVID-19.

The timing and sequencing seem to be tragically dramatic. It broke out just when the Chinese lunar year celebrations were underway and the holidays had to be extended. COVID-19 spread its tentacles from Wuhan to the rest of Hubei Province and then gradually to other provinces in China and also to Japan and Korea. Countries like Italy and Iran are heavily affected. The cruise vessel Diamond Princess is a stark reminder of the direct exposure of global shipping to the COVID-19. Our world was exposed to SARS in 2003, and it took a bit more than a year to find a cure and for normalcy to return.

The speed and the severity with which the virus spread from China, South Korea, Japan, and South East Asia to the Middle East especially Iran, UAE, etc. and then onto Italy and Spain, and then all over Europe is tragically staggering. Hundreds of thousands are affected and thousands have died. USA, Canada, and here we, in India, are in a complete lockdown mode. This is indeed unprecedented and the world is unprepared. At J M BAXI GROUP, each and every one of us have worked together to keep all our colleagues, clients and families safe. We continue to work with various authorities to cope with this disaster. After all, the nature of our business and activities makes it the most vulnerable to this gradually unfurling disaster.

At the time of writing this, there are mixed reports of the resumption of exports and imports through and from China. In the meantime, several of the large container shipping companies have cut services from and to China. The reports indicate that in TEU terms, 8% to 10% of the container fleet is idle or logged up. It has also been reported that in the petroleum sector, several refineries in China could

not receive crude shipments, which has resulted in such cargoes being available to other markets, including India. The tanker markets worldwide certainly seem to be dampened. On the same note, the bulk carrier market has continued to be more than subdued. On the cruise shipping side, the impact of the coronavirus is expected to be devastating. So, all in all, the overall impact of the coronavirus may be a hard blow to all shipping sectors, with the impact lasting at least 3 to 6 months.

At the time of going into publication, the DG shipping of India has published guidelines for the handling, berthing, and quarantine of ships that arrive in India. The ports, which are “essential utilities” continue to operate but the trucking and transport industry remains under semi locked down condition. The proactive and strict clampdown by the governmental authorities is likely to result in successful prevention of a deadly spread of the Covid-19 thus preventing infection and fatalities.

This global crisis, disaster, emergency has had most governments also tackling the corresponding economic consequences that are following in the wake of this Covid-19.

News has shown that the US has announced US\$ 2 trillion, UK £ 330 billion, various European countries including Germany, France, Spain, etc. with almost € 1 trillion. All governments are recognizing that the aftermath of this disaster is going to result in companies and citizens needing loads of help. We are at one of those times which truly seems to be existential quest and question. Some of the challenges that India will face is the existing banking and fiscal stresses in the system. These stresses have remained in the system which has effectively put stress on the companies which have managed to avoid the downturn due to prudent frugal and persevering governance and management. But there is certainly a limit to such ability to face downturns.



India’s annual budget 2020-21 focuses on slow growth rate, credit and liquidity issues, non-performing assets and streamlining taxes. The government’s commitment to privatize few non-strategic companies is expected to bring some positive developments, especially for companies like Air India, Shipping Corporation of India (SCI), Bharat Petroleum Corporation Limited (BPCL) and Container Corporation of India Ltd. (Concor).

Continuing on a positive note, let me share with you a recent inspiring event that occurred during our last review session at DICT Sonapat. We were privileged that the entire management team of the LT Overseas Food Company came to flag off their “export train” from DICT to Pipavav. It was incredible to learn from them about the range of products their company makes, mainly for the export market as well as their domestic market. Amongst many of their ventures, they also have an interesting joint venture with a Japanese company for rice-based snack products. They gave me generous gifts of their products. This event filled me with a deep sense of pride in two ways:

1. That an Indian company is taking global strides and paving the way for India’s significant participation in world trade.
2. That we, as a company, have an opportunity to serve such jewels of India.

We, at J M BAXI GROUP, are continuing to uphold our commitments to our customers, our clients and our principals. Till the next time ■

Krishna B. Kotak
Chairman - J M BAXI GROUP

Infrastructure

Speciality Fertiliser Handling At MICT II

Speciality fertilisers, such as water-soluble fertiliser (WSF), are gaining importance in Indian agriculture with annual revenues for the fertiliser industry of USD 12.7 billion in 2018 and projected to reach USD 20.6 billion by 2028. WSF is mostly used for horticultural crops, cash crops and flowers grown using drip irrigation, as WSF maintains the fertility of the soil.

Over the years, there has been increasing pressure to adopt drip irrigation, which reduces water consumption and is suitable for use anywhere, including on undulating terrain, barren land, rolling topography, and areas with shallow soil layers. Government initiatives increasingly focus on increasing agricultural output, and coupled with various subsidies to promote the use of drip irrigation, there has been positive growth in the usage of WSF.

According to the Indian Journal of Agricultural Sciences, the production of WSF has not increased over the years in India as it is cheaper to import WSF than make it from the raw materials. The share of indigenous production in total sales of WSF is nearly 15% and the country is highly dependent on imports. A significant number of fertiliser manufacturers import either the finished product or the raw materials. The major producers supplying WSF to India are Norway, Russia, UAE, Malaysia, Belgium, Israel and China.

Imports of WSF to JNPT

JNPT is one of the preferred ports for importing WSF, capturing almost 50% of the total imports to India (approximately 100,000 lakh

MT in FY20). The port has an ideal geographical location that allows it to connect with various international seaports via sea-trade routes and it is close to various domestic markets. Also, the frequency with which vessels from various shipping lines call at JNPT makes it attractive and cost-effective for importers.

The major fertiliser companies that import WSF in JNPT are

Yara Fertilizer	Chambal Fertilizer	Coromandel Fertilizer
Indian Potash Ltd	ICL Fertilizers	Nagarjuna Fertilizers
National Fertilizers	Rashtriya Chemicals & Fertilizers	Deepak Fertilisers

MICT II: Fertiliser and agriculture logistics park

International Cargo Terminals and Infrastructure Pvt. Ltd. (ICTIPL), an infrastructure vertical of J M BAXI GROUP, has developed a multi-cargo logistics park, the second Mumbai International Cargo Terminal (MICT II), near the village of Kalambusare, which is ~18 km from JNPT. The logistics park is a front runner in the region, providing a single window service for EXIM volumes to the fertiliser and agri-based industries.

MICT II is close to JNPT, which makes it an ideal location, and it is well connected to major fertiliser consumption centres in the western, northern and central parts of India as shown below:



Below table provides the proximity of the terminal to the major consumption centres

State	Major Location (Avg. Distance in Km)
Maharashtra	Pune/Nashik/Sangli/Satara/Solapur
Madhya Pradesh	Indore/Bhopal
Rajasthan	Jaipur
Uttar Pradesh	Lucknow/Sambhal/Meerut
Haryana	Hisar/Karnal
Punjab	Bhatinda/Ludhiana
Uttarakhand	Dehradun
Bihar	Patna
Jammu & Kashmir	Srinagar/Sopore



Infrastructure

MICT II: Trade benefits

Speciality fertiliser must be handled with great care. The importers have stringent requirements because the final product is traded in the open market without any subsidies or assistance provided by the government. Hence, the importers make sure that the products are neatly packed to a standard and accurately weighed. Each importer has a brand image as the products are sold to farmers. Thus, MICT II ensures its customers get a hassle-free experience by providing the following quality services:

Single window services
Customs clearance and documentation, container freight station, warehousing and supply chain solutions, all under one roof

Integrated systems
Reduced documentation effort using the SAP system with e-waybills, electronic sales orders and stock transfer orders, invoice booking and so on

Mechanised handling and bagging facility

Other allied value-added services
Grading, sorting, cleaning, re-packaging, printing, drumming etc.

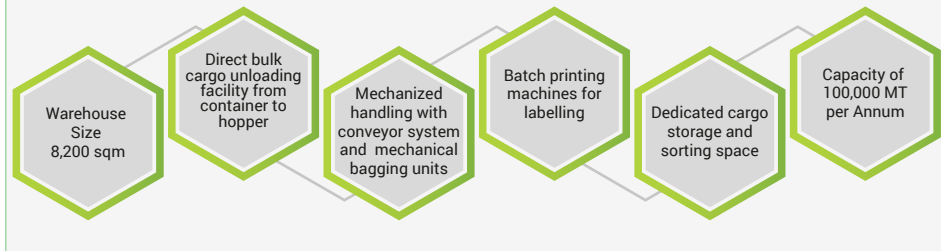
First and last mile transportation
Ensures seamless connectivity

Security
The facility is closely guarded. It has boundary fencing, closed-circuit television (CCTV) surveillance (24 hrs x 365 days) and security guards, which give the customers peace of mind that their cargo is safe and that handling losses are minimised

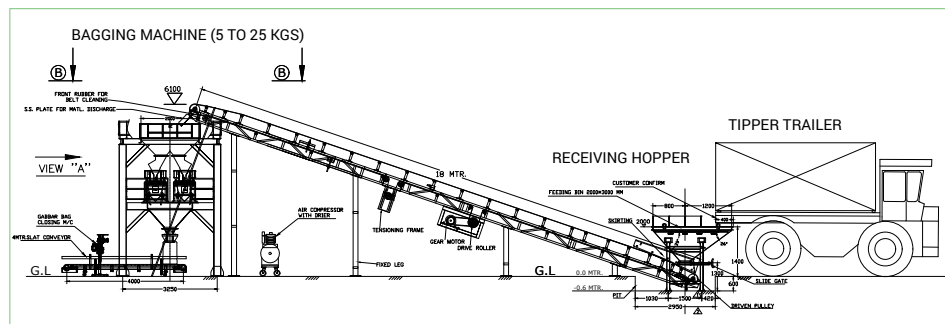
The J M BAXI GROUP
We are the pioneers in providing effective customised logistical solutions to the trade with our more than 100 years of experience

MICT II: WSF handling and storage

Facilities



Layout of WSF bagging system



Mechanised bagging

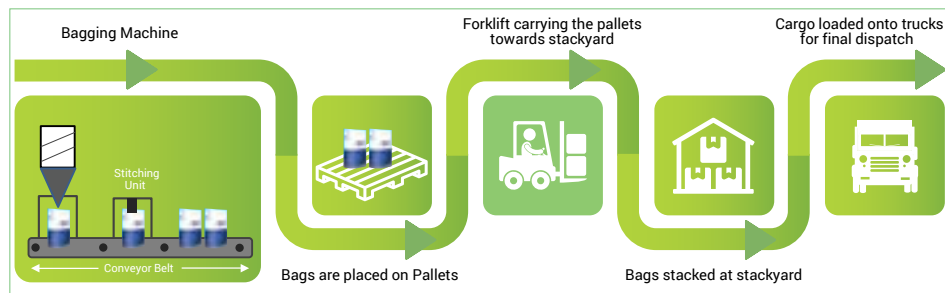


Photo gallery



Technology

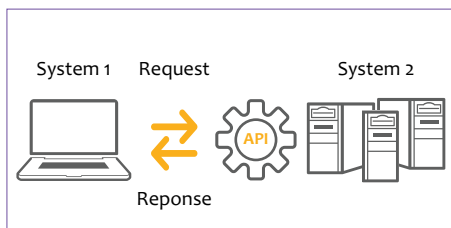
APIs – Application Programming Interfaces

APIs In Technical Jargon

An application programming interface (API) is an interface or communication protocol that allows information to be passed between different computer systems or between the different parts of a computer system. Another way of looking at it is that an API specifies how different software components should interact with each other. Thus, an API has routines for building software applications. The aim is to simplify the implementation and maintenance of software. APIs are used for linking together websites, operating systems, databases, computer hardware and software libraries. Additionally, APIs are used when programming a graphical user interface (GUI). API-based solutions make life simpler and easier. Data from solution providers is available in real time and nothing is lost in transit.

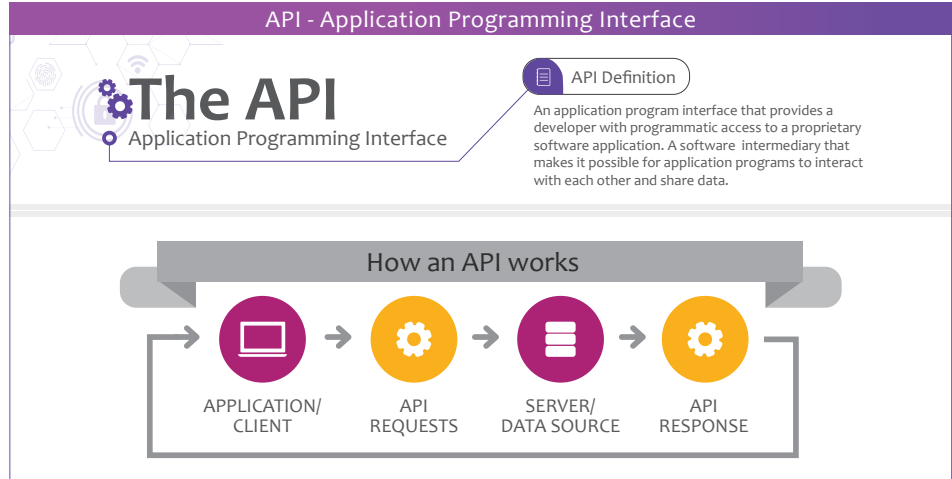
APIs For The Layperson

An API is a software intermediary that allows two computer applications to talk to each other. In other words, an API is like a messenger who delivers your request for information to somebody and then delivers their response back to you.

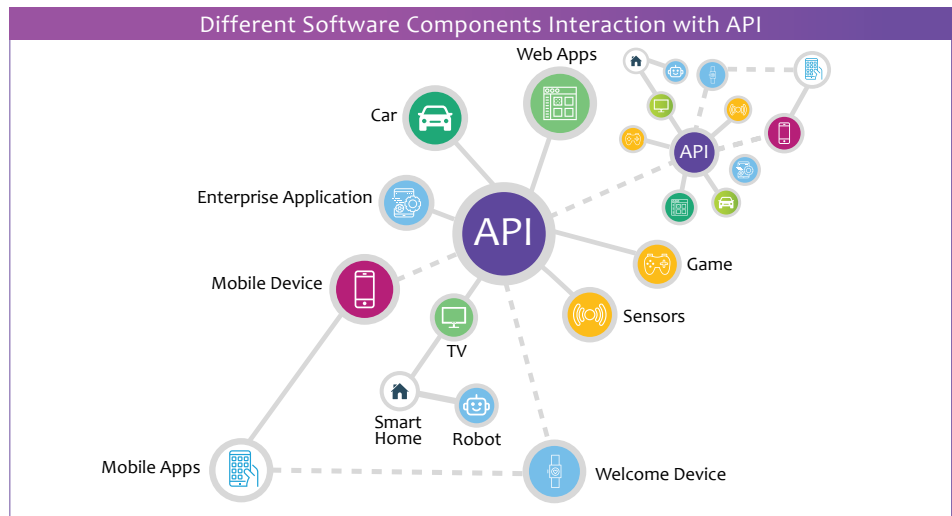


For example, users can search Trivago for data about hotels. Trivago uses an API to request specific data

API - Application Programming Interface



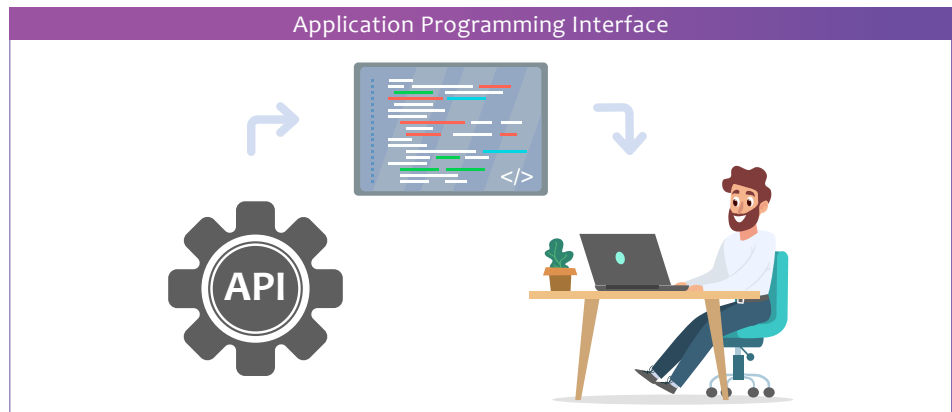
Different Software Components Interaction with API



from the hotels in real time, which is then formatted and displayed to its users.

So, an API is a tool set that programmers can use to create software applications. Another

Application Programming Interface



Technology

example is the API in Apple’s iOS that is used to detect and process touchscreen interactions. APIs are tools. They allow programmers to deliver solid solutions fairly rapidly.

With the development of apps for mobile devices, organisations can give users access to and collect information through apps and not just through the internet. Within the public sector, APIs allow different agencies to share information and to let the public interact with government bodies.

APIs In Shipping And Logistics

In the shipping and logistics industry, API-based solutions have been in use for a while. The number of applications is steadily growing with the advent of new technologies and solutions. The most common example of an API in shipping and logistics is the track-and-trace or tracking utility provided by various service providers. A tracking API allows shipments to be tracked by reference, package or shipment number. Thus, APIs are used by apps and websites to display details and the status of shipments.

Another classic example is when a shipping agent sends an updated vessel profile to Directorate General of Lighthouses and Lightships (DGLL), customs and other statutory agencies. In the standard process, the vessel’s profile, as updated by the shipping agent in the Port Community System (PCS), is sent to

customs and DGLL via an email or by giving access to a computer folder. However, the data may not arrive if it is copied incorrectly, if the email address is wrong, if it gets corrupted somewhere or it is accidentally deleted. In this case, the shipping agent will not be able to pay the lighthouse dues and so will not be able to berth the vessel, which will result in losses.

Using an API-based system to exchange data totally eradicates such risks, since PCS can use the API to send the data in real time to customs and DGLL. Even if the message gets lost or something happens to the data, the recipient (customs or DGLL) can send another request for the data via the API to PCS and instantly receive a response. Thus, vessel profiles are always available to the statutory bodies.

API-Based Data And Message Exchange Between Customs And PCS 1x

One of the key pain points in the industry was the non-availability of the data held by customs on vessels and also the lack of data from customs for Import General Manifests (IGMs), amendments and so on. These issues have been taken care of with an API-based message exchange. IceGate and PCS 1x talk to each other via an API. Data is exchanged between them in real time (push) and as required (pull). Thus, updates are sent automatically to other systems (push) so that they are

available to the various stakeholders. Moreover, if some data is missing, it can be requested (pull). All relevant data is 100 per cent available to both systems, making the processes more efficient.

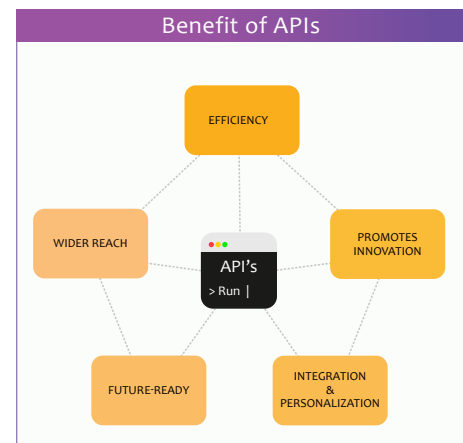
API-Based Data And Message Exchange Between FOIS And PCS 1x

Formerly, Freight Operations Information System (FOIS) and now Centre for Railway Information Systems (CRIS), the railway freight management system, exchanged data on wagons with other systems, such as PCS 1x, every 3 to 4 hours. With the new API-based methodology, data is exchanged in near real time. As soon as the data is updated in FOIS, it is sent to PCS 1x, which in turn sends it to relevant stakeholders in real time. Thus, FOIS no longer needs to send data to each stakeholder individually.

Benefit of APIs

- APIs make data management more efficient.
- APIs bridge the gap between two computer systems.
- APIs make it easy to integrate multiple systems.
- APIs can provide personalised data for each stakeholder.

Overall, APIs save time, reduce the effort required and reduce costs, thus improving customer service and satisfaction ■



Technology

ARYACOM Setting The Highest Growth Record

2019–20 was an exceptional year for Arya Communications & Electronics Services Pvt. Ltd. (Aryacom), setting the highest growth record for Motorola and S&G products and solutions.

Two prestigious awards from Motorola, namely “Distributor of the Year” and the “Empower Circle Award” have been received by Aryacom.

In FY 2019–20, Aryacom achieved unprecedented success by setting a new selling record for all-time highest revenue billing with Motorola, pioneered in India.

Aryacom has taken a leap of exceptional overall growth of 25% in Motorola business, of which 34% growth is in Motorola Government Business and 16% growth is in Motorola private business.

Additional achievements by Aryacom

- Orders from all major police and paramilitary accounts
- Special focus on railways, contributing towards additional growth
- Imparted special technical training and solution selling to engineers for enhancing their technical capabilities
- Commissioned first Link Capacity Plus (LCP) based system in Madhya Pradesh Police
- Established POC for TRBOnet in major locations

S&G: High Security Locks and Locking Systems

Aryacom’s reputation has come from the astoundingly great work it delivered across the country.

Today, among the handful of things that define Automated Teller Machine (ATM) security is One Time Combination (OTC), the largest platform for this unique security concept. More than two lac ATMs have been secured by us in India. OTC is a unique feature in our high security lock product portfolio. The greatest names in the financial institutions, manufacturing and the technology world looks at Aryacom as part of their critical success factor. NCR Corporation, Diebold Nixdorf, Hitachi Ltd., OKI, VORTEX and TATA Communications, to name just a few, have always contributed to our success story over the past few years. After working with the Reserve Bank of India (RBI) for many years to recognize the importance of OTC security features, finally last year it was mandated by them for ATM security. Today Aryacom is the market leader in India in the ATM sector, having an installation base of more than 215,000 high security safe locks from S & G (sold by Aryacom) – almost 90% of the total ATM population in the country.

Aryacom’s strengths were hope, sincerity, self-discipline and self-belief in the face of adversity. In the process, many lessons were learnt and kept assuring us that Aryacom can build something great. Aryacom wanted to create memorable work that would stand for great output that delivers outstanding value to our customers and builds a business with a human face.

But before Aryacom tasted success, we braced many storms. More turbulence came, but we stayed steadfast.

Over the ensuing months it grew and soon was taller than all of us! This was a result of embracing a set of values and a unique culture within our company.



For our unprecedented accomplishments in the previous year, Aryacom were awarded by our Principal S&G “Distributor Excellence Award for Top Distributor Sales in Asia Pacific region”.

Earlier our Principal S&G had also recognized us for our unparalleled success in making India the #1 market in the world for their critically important security product.

In FY 2019–20 Aryacom created a new record by achieving the highest growth of 90%, maintaining our leadership position in India in recent years.

Last year Aryacom took several new initiatives – venturing into dealer segments with new types of products, such as bluetooth-enabled locks, and adding several new customers including the world famous Glory International.

Last, but not least, Aryacom made all these achievements possible with a very small team of dedicated and committed professionals.

Technology

New Business Initiatives

Aryacom added various products and solutions that contributed to its growth in 2019–20 namely

- ✦ Video surveillance with analytics
- ✦ Baggage X-ray system
- ✦ Automatic boat tracking system (ABTS) – bagged the order for providing ABTS to the largest fishery in India
- ✦ High frequency (HF) radio – signed contract with Barrett Communications, Australia for exclusive distributorship of HF radios in India and bagged orders from prestigious customers in India
- ✦ Automatic finger identification systems – MOU signed with Papillion Systems, Russia for automatic finger identification. This solution will be very effective for police crime departments

Arya Infosystems

Arya Infosystems ventured into business with limited resources at its disposal. It started taking baby steps by picking up software projects and IT infrastructure orders from group companies.

Apart from group companies, it has also started pitching into the open market for projects in various sectors i.e. shipping and logistics, education, banking and government tenders.

A few successfully delivered software projects are also being copyrighted and trademarked with an aspiration towards becoming a product-oriented company.

APMT- Pipavav- Order for SFTP Tool to exchange messages between PCS 1x (port community system) and Container Terminal

Arya Infosystems has received their first order from an external customer, one of the container terminals – APM Terminals Pipavav-M/s. Gujarat Pipavav Port Limited.

The project was executed to cater for terminal's latest requirement

of exchanging messages from Indian Ports Association's (IPA) Port Community System Version 1x to their Terminal Operating System (TOS) using an automated process of sharing the XML messages at terminal's dedicated folder from where the TOS will be fetching the XML messages and consume/store the data to ease the process of updating data for terminal disposal.

Arya Infosystems has implemented the SFTP utility at the APM Terminal environment and successfully exchanged messages as per terminal's requirement.

Print Next- Solution for Designing and Printing Smart Cards with data encryption capabilities

As per the current scenarios, Aryacom sales team requires to supply third party card printing software for individual as well as bulk orders of printers for government and private organizations.

To satisfy the customer need for an end-to-end solution for card printing hardware and software, Arya Infosystems and Aryacom team has worked together, using our experience and adequate understanding of processes to develop a complete solution of card designing and printing software to work with Zebra card printers – with the added features of data encoding and APIs.

Software Solutions

Arya Infosystems, with its inherent technical and domain expertise, has stepped into taking up projects with a solutioning approach to design, develop and implement software solutions for business challenges like.

A few examples

BillEzee

A web-based invoicing application for a non-vessel operating common carrier (NVOCC) agency.

CrewMan

A web application of data bank of marine and offshore crew.

DocAudit

A web application enabling workflow of document auditing process.

BID

A web application for business insights dashboard for sales and marketing efforts with management information system (MIS) reports.

GACC – Group Audit Compliance Certification

Over the last 11 months of our operations with J M Baxi Group, Arya Infosystems provided consultancy services for GACC – Group Audit Compliance & Certification. We successfully enabled group companies for implementations of General Data Protection Regulation (GDPR), ISO 27001 and ISO 20000.

Arya Infosystems have an in-house team that is capable of hand-holding customer's operation teams for the delivery of ISO certifications, which is becoming mandatory for conducting business for some of our companies, or in other cases where the end customers have it as a pre-requisite.

One Time Combination (OTC) Management Solution for S&G OTC Locks

As per government norms for security measures for ATMs, a mandate has been issued to all banks that all ATMs shall be operated for cash replenishment only with digital OTC locks, which will also need to have an OTC management solution to generate OTC with authenticating the registered user and the respective lock's serial number.

Arya Infosystems and Aryacom have jointly made efforts to identify the best possible solution for OTC management to cater for this government requirement by providing an end-to-end solution (including S&G locks and OTC management system). The solution has three offerings. According to the banks' readiness and capability they can select one of the offered solutions and comply with the security measures for ATMs

In Focus

The INDIAN Cotton Industry

Whether raw cotton, cotton seed or cotton textiles, India has been a leader in producing and exporting cotton. The cotton textile industry is the largest organised industry in India. It has grown tremendously during the last four decades and this industry has about 16% of India's capital and more than 20% of India's industrial labour. In total, it employs up to 15 million workers. There are more than 3000 textile mills in India, both small and large, out of which 188 are in the public sector and 147 are in the cooperative sector. The rest are in the private sector. In addition, there are several thousand small factories with 5–10 looms each. Maharashtra, Gujarat, Andhra Pradesh and Madhya Pradesh are the leading cotton-producing states in India because of their tropically wet and dry climate.

Table 1. Cotton production in India

October to September	Cotton production (lakh bales of 170 kg each)
2016-17	345
2017-18	370
2018-19	312
2019-20*	355

*Estimated

Estimates for 2019-20

The Cotton Association of India (CAI) has declared that its cotton crop estimate for 2019/20 is 355 lakh bales of 170 kg compared to 330 lakh bales in 2018/19, which is up by 9%. Total demand is also estimated to grow by 6% to 381 lakh bales from the 359.50 lakh bales last season. Even as a large part of the cotton-growing region in Gujarat faces pink bollworm infestations, which casts a shadow on production, the improved

prospects in Maharashtra and Telangana will maintain the overall level of cotton output for the 2019-20 season in India. Moreover, the textile industry is also expected to continue to grow and reach USD 223 billion by 2021, therefore driving demand for Indian cotton.

Table 2. Top 10 cotton-producing states

State	2019-20* (lakh bales of 170 kg each)	2018-19 (lakh bales of 170 kg each)
All India	354.50	312.00
Gujarat	96.00	88.00
Maharashtra	83.00	70.00
Telangana	51.00	35.00
Rajasthan	29.00	28.00
Haryana	26.00	23.00
Karnataka	20.00	15.50
Madhya Pradesh	16.00	23.00
Andhra Pradesh	15.00	12.00
Punjab	10.00	8.50
Tamil Nadu	5.00	5.00
Others	5.00	4.00

Source: Cotton Association of India
*projected

Gujarat and Maharashtra together produce about 50% of India's cotton, with Gujarat ginning almost all of it. However, they are not the main cotton-consuming states. Tamil Nadu, at the bottom of the list of the top 10 producers of cotton, is the highest consumer of cotton. It is spun into yarn, and used for Indian cotton made-ups, cotton T-shirts and other cotton products.

EXIM

The total exports for the crop season 2019-20 are projected to be 42 lakh bales. The CAI expects that the country will export 15 lakh bales to China, compared to 8 lakh bales last year. Cotton exports to Pakistan have been suspended due to the border issue. India had already exported 8 lakh bales to Pakistan with another 6.5 lakh bales en route. The pending orders will be fulfilled once normalcy returns. Cotton is exported from the Gujarat ports at Pipavav and Mundra to China, Pakistan, Vietnam etc.

US-China Trade War

The ongoing trade war between the world's two largest cotton economies is having a significant impact on the global cotton market. However, the uncertainty has also created opportunities for India, which is exporting more raw cotton to China to meet India's deficit created by the fall in demand by the US for cotton.

India-Bangladesh Bilateral Trade

Bangladesh has emerged as the biggest importer of Indian cotton this season. The CAI plans to sign a memorandum of understanding with Bangladesh to increase India's cotton exports to that country by 30% from the 20 lakh bales shipped out last year. Since April 2019, India has exported 10 lakh bales to Bangladesh. Over 90% of the cotton supplied to Bangladesh's textile mills are met through imports. The country has over 200 textile mills and a large presence in power looms and processing. There are no restrictions on the import of Indian cotton into Bangladesh. Cotton is exported to Bangladesh from India via the ports at Kolkata, Krishnapatnam and

In Focus

Visakhapatnam on the east coast and via the road route through Benapole. The prime minister has signed a coastal shipping agreement, which will reduce shipment times from Indian ports.

Domestic Cotton Logistics

Because the top cotton-producing states are not the top cotton-consuming states, logistics costs and the efficiency of the cotton supply chain are very important. For example, consider the first and the last in the top ten cotton-producing states: Gujarat and Tamil Nadu. Tamil Nadu produces only 5 to 6 lakh bales of cotton per year against its annual requirement of 12 million bales, while Gujarat consumes only around 1.5 million bales a year out of its annual production of over 10.0 million bales. To fill the demand-supply gap, mills in Tamil Nadu procure over 10.0 million bales of cotton from other states, especially from Gujarat and Maharashtra. Almost 50% of the cotton used for textile manufacturing in Tamil Nadu is purchased from Gujarat. In May 2018, the Government of India finally relaxed its strict cabotage laws. The change allows foreign flag vessels to transport laden export-import containers for trans-shipment and empty containers for repositioning

between Indian ports without specific permission or a licence. Hence, domestic cargoes like cotton are being moved more by coastal carriers than by rail from Gujarat to Tamil Nadu.

Overall, the relaxation of cabotage may help in producing an additional 5–7% of cost savings in the coastal movements of cotton, but the inducement both ways is a limiting factor, which is an opportunity for domestic logistics companies to leverage.

Port Infrastructure For Handling Cotton

There are ginning mills in Gujarat like Rajkot, Rajula and Junagad where raw cotton is converted into cotton bales. These bales are transported to a container freight station (CFS) and to private warehouses by road. From there, the bales are gated inside gateway ports before being exported.

Raw cotton grown in Gujarat is stuffed inside dry containers and shipped along the coast from Kandla Port to Tuticorin or Kochi. Upon reaching Tuticorin or Kochi, these containers are then moved towards the ginning mills or spinning mills, which convert them into cotton

bales or yarn, respectively. These bales and the yarn are consumed by the domestic market, with very little being exported to foreign shores from the gateway ports of the south.

The second container terminal at V. O. Chidambaranar Port, Dakshin Bharat Gateway Terminal Pvt. Ltd. (DBGT), is developing a special storage facility for handling raw cotton. This facility is likely to accommodate around 500 TEUs of 40-foot containers and will be in the custom bonded area of DBGT. The raw cotton can be stored for 30 days free of cost. Customs has also issued the necessary guidelines for handling and storing imported raw cotton in the facility.

There are special facilities for handling cotton at Kochi Port, which are designed to attract some of the EXIM cargo currently being handled at the neighbouring port in Colombo. SIMA is bringing in cotton in containers using the port at Colombo as a hub. Kochi offers amenities that match international standards for importing, warehousing and re-exporting the product at comparable costs. If things go as planned, the port anticipates that it will handle 30,000 TEUs of cotton in the current year ■

Table 3. Transportation modes for domestic cotton

	Road	Coastal Shipping	Rail
Costs	High	Can be improved	Best
Timeline	Low	Meets expectations	Poor
Fleet availability	Poor	Can be improved	Poor
Limitations	10 MT trucks are not feasible for bales; 35' special trucks work, but there are not many of them and they are expensive	Upon inducement to Main-line Operators (MLOs) or the availability of return cargo from Tuticorin and Kochi	Priority is given to the movement of fertilisers, food grains, etc. and also to passenger traffic

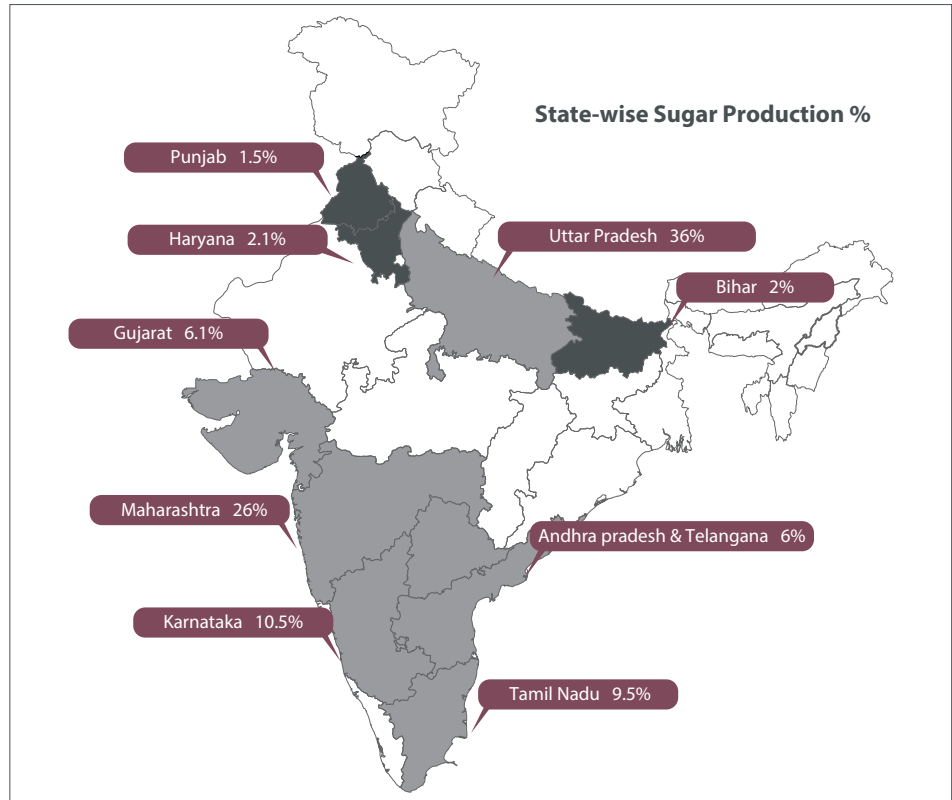


Weights & Measure

INDIAN Sugar And Trade Opportunities

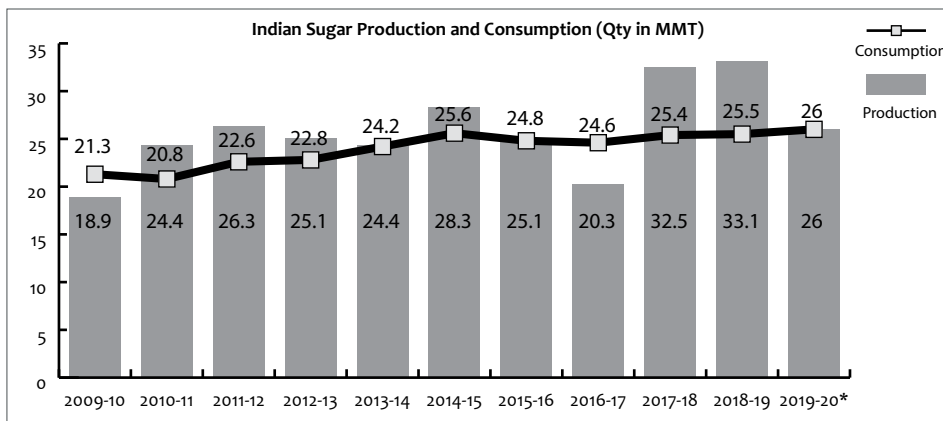
The Sugar industry is one of the most important agro-based industries in India and is responsible for creating significant impact on rural economy and country's economy. India became the world's largest sugar producer in 2018/2019, beating Brazil for the first time in 16 years. India produced 33 million metric tonnes of sugar. That is 19% of the world's total sugar production of 179 million metric tonnes. The nation is seeing record levels of sugar production due to increased sugar farmland and improved yields.

According to industry body Indian Sugar Mills Association (ISMA) Indian exports may cross 5 million tonnes in the ongoing marketing year ending September. Government has allowed export of 6 million tonnes of sugar under Maximum Admissible Export Quota (MAEQ) to help deal with the surplus sugar. And for the marketing year 2019-20 sugar production has touched 19.5 till end of February 2020, and it is expected to reach 26 metric tonnes by September 2020.



rural population in these nine states through direct and indirect employment. In 2018–19, the six states of Andhra Pradesh, Gujarat,

and Haryana producing less than 1 million metric tonnes of sugar. India's 2018–19 sugar production was 33.0 million tonnes. Output in Uttar Pradesh, Maharashtra and Karnataka accounted for an 80% share of the country's production. Uttar Pradesh tops the list in sugar-producing states with 11.8 million metric tonnes followed by Maharashtra with 10.72 million metric tonnes and Karnataka with 4.4 million metric tonnes in third position. Other states like Tamil Nadu, Gujarat, Andhra Pradesh, Telangana, Bihar, Punjab, Haryana, Madhya Pradesh, Chhattisgarh, Odisha, Uttarakhand accounted for a total of 6 million metric tonnes of sugar production.



Sugar-producing states

Sugar is produced in India primarily in nine major states. This industry caters to an estimated 12% of the

Karnataka, Maharashtra, Uttar Pradesh and Tamil Nadu each produced more than 1 million metric tonnes of sugar per annum, with the three states of Bihar, Punjab

Top sugar-producing states outlook

Uttar Pradesh is the largest sugar-producing state in India with 19

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Weights & Measure

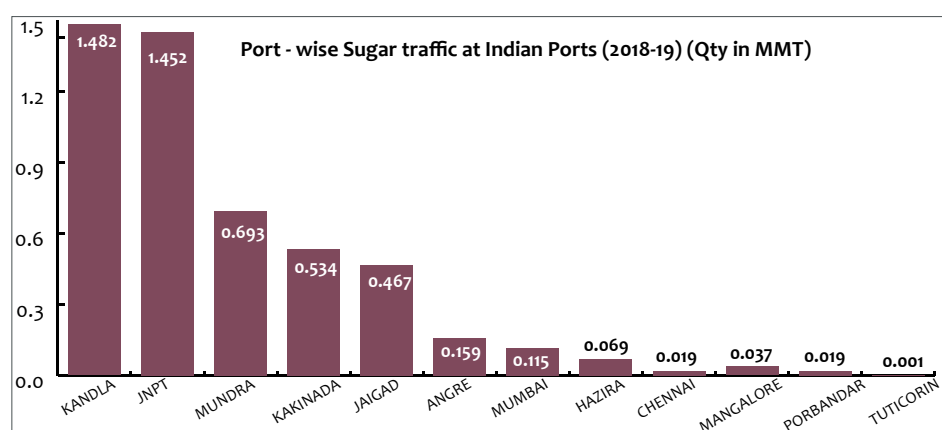
operational sugar mills, of which 92 units belong to the private sector, followed by 24 and 3 factories operating in the cooperative and government sector respectively. States accounts for nearly 36% of total production. Maharashtra is the second largest producer of sugar in India, with 195 mills accounting for 26% of total production. Karnataka is the third largest sugarcane-producing state of India with more than 10.5% share of production.

Freight benefits for sugar industry

The government in August 2019 approved an export subsidy of Rs. 10,448 per tonne of sugar up to a maximum of 6 million tonnes, at an estimated cost of Rs. 6,268 crores. This lump sum subsidy to sugar mills covers the expenses on marketing, handling, processing and transport charges.

Further, in order to meet the export deadline, the Department of Food and Public Distribution has reallocated about 6 lakh tonnes of MAEQ from the sugar mills that up to 31st January 2019 had not made any efforts towards exports, to the mills who are willing to export more sugar.

J M BAXI GROUP's sugar-handling infrastructure at Indian ports		
Port	Cargo	Infrastructure
Kandla	Bulk/bags	<ul style="list-style-type: none"> Private warehouses Payloaders for cargo heaping/pushing at warehouse and wharf Dumpers for cargo carting Private grabs Gear supply Steel mesh on vessel holds with fishing nets Labour for operations at warehouse, wharf and rake handling
Mangalore	Bulk	<ul style="list-style-type: none"> Private/port warehouses Payloaders for cargo heaping/pushing at warehouse and wharf Dumpers for cargo carting Mobile harbour crane with grabs Labour for operations at warehouse, wharf and rake handling
Mumbai	Bags	<ul style="list-style-type: none"> Port warehouses Trucks for cargo intercarting Gear supply Labour for operations at warehouse, wharf and rake unloading



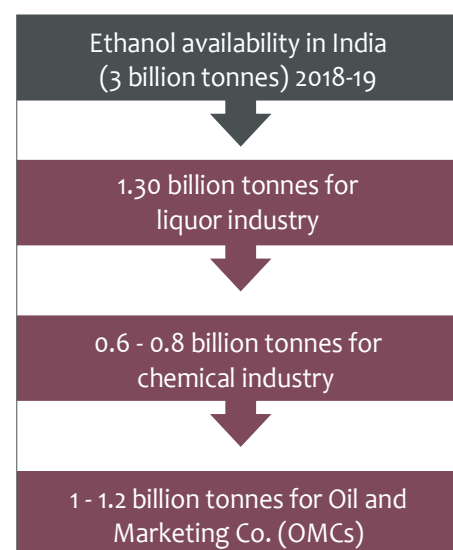
Sugar handling in India (2018-19)	
Type	(qty in MMT)
Containers	2.2
Bags	1.5
Bulk	1.4

major chunk is handled at gateway ports like JNPT (1.4) and Mundra (0.6). Kandla handles the highest volume of 1.5 million tonnes of sugar in bulk and bag sugar.

By product market – ethanol

India, which is over 80% dependent on imports to meet its oil needs, has mandated blending of up to 10% ethanol in petrol but inadequate availability has restricted this to under 4%. To improve this situation, ISMA has estimated 8lk tonnes of sugar cane production diverted to ethanol production in the 2019-20 season. India's annual requirement of ethanol is 5.11 billion litres as against current capacities of 3.5 billion litres. With the increased supply of sugarcane, ethanol

production is now estimated to increase for 2019-20 season ■



(to be continued in issue XXX)



Agency & Services

Specialized Handling In Difficult Conditions

J. M. Baxi & Co. was associated with a specialized handling operations of a semi-submersible ship as a recent owner's protecting agent. The company provided support services while undertaking a complex operation to load four floating units, comprising two floating cranes, one hopper barge and one tugboat onto a semi-submersible vessel at Bedi Anchorage, Jamnagar, in Gujarat.



A semi-submersible heavy-lift ship has a long and low well deck between the forecastle deck forward and the machinery space aft. It has water ballast tanks, which can be filled with water to lower the well deck below sea level. Oil platforms, smaller craft and other floating units can then be positioned over the submerged well deck. Once these floating units are in position, the ballast water is then gradually pumped out and the semi-submersible vessel rises. The floating units are then secured to the well deck for the sea voyage to the destination port. Generally, such floating units are moved under a sale and purchase contract, as they are unable to move any distance under their own propulsion. Oil platforms are moved in this manner

if they need to be repositioned or need to undergo maintenance at a predesignated yard. Drilling rigs are also moved from their construction site to the drilling site. This type of operation is termed as float-on/float-off. These specialised semi-submersible vessels reduce transit times and costs compared to towing.

The semi-submersible MV Hawk arrived at Bedi Anchorage on 9 January 2020. Since the operation was very specialised, the entire loading process was done under the supervision of the loading master Mr Valentin Gudim while the vessel was under the command of Capt. Albert.

The challenges faced during the stay of the semi-submersible were

mainly related to the weather. As per the company's standard operating procedure for safe handling, all such operations require sufficient depth so that the semi-submersible can be submerged to the required level. The weather has to be very fair with practically no swell. According to the port operations manual, the wind speed and sea current must not exceed 15.0 knots and 1.0 knots, respectively. If the wind speed or sea currents are too high, the operation has to be aborted.

The port at Bedi, unfortunately, is susceptible to winds of more than 20 knots at noon. Thus, the entire load operation was completed in stages during daylight for safety reasons.

Port officers from the Gujarat Maritime Board were present throughout the stay of the vessel to ensure safe and accident-free operation. They chaired various meetings and briefings on board, which were organised prior to the commencement of any critical operations.

The loading of the floating units was completed on 25 January 2020. MV Hawk departed from Bedi Anchorage for Sierra Leone on 29 January 2020 after securing the four floating units on deck ■



Agency & Services

Reviving A Vessel Nu Shi Nalini – Salvage Operation

Mormugao Port Trust (MPT) experienced a disastrous situation with regard to grounded vessel MV Nu Shi Nalini, a chemical tanker built in 2012. The vessel ran aground over a rocky area in Marivel Patches off Dona Paula shore, Goa. It was carrying a cargo of 2000 metric tonnes of naphtha, 50 metric tonnes fuel oil and about 19 metric tonnes of diesel oil.

Her engine room and pump room were flooded. The integrity of the hull was compromised and the ballast tanks became tidal. It was realised that the hull of the vessel had been heavily breached, as there were strong air movements in the tank that coincided with the swell.

If the vessel had not quickly been salvaged, refloated and then discharged, there could have been major oil pollution along with damage to the environment and property. Tourism in Goa could have been adversely affected due to the pollution.

MPT contracted Marine Masters BV (MMBV) after a due tendering process and they were assigned as the salvors to refloat the vessel and unload the cargo. MMBV mobilised an expert team of salvage masters, naval architects, marine chemists and divers.

MMBV conducted a diving and bathymetric survey while continuously inerting the vessel's cargo tanks and monitoring the flammable limits. Within a week of the contract being signed, equipment was sourced and loaded onto a crane barge. Key items were an inert-gas generator, power packs, air compressors and diving equipment.

The naval architects developed a model of the continuous changes in the vessel's condition, allowing them to identify the optimum time to refloat the vessel based on the tides. The ballast tanks were sealed and filled with compressed air to create buoyancy and for hydrostatic balancing to reduce the draft of the vessel.

Port tugs and an emergency towing vessel were utilised to tow the vessel into the channel at MPT and she was berthed alongside the cargo jetty. The vessel was refloated without any damage and her cargo was discharged using intrinsically safe hydraulic submersible pumps. The salvage operation was completed well within the timeline provided by MMBV to MPT at the time of salvage planning.

MPT recognised the timely execution of the project without any damage to the environment, property or persons. There was not a single lost time incident during the entire project. The port and government officials provided considerable support during the salvage operation. They expedited the requisite documentation and permitted inward clearance of additional salvage equipment that was brought in to facilitate the removal of the vessel.

The government of Goa monitored the progress of the salvage operation, with regular updates being sent to the office of the Honourable Chief Minister of Goa.

The salvage operation was completed successfully on 19 December 2019 and the vessel was then handed over to Mormugao Port Trust ■



Agency & Services

Cruise And Navy Ship Calls 2019 - 2020

J. M. Baxi & Co. handles a major share of the cruise ships visiting India, with over 100 calls in six ports – Mumbai, Goa, New Mangalore, Kochi, Port Blair and Porbandar. During the last financial year, we handled a wide spectrum of calls, ranging from the second largest cruise ship in the world, the Spectrum of the Seas at Mumbai and Kochi in May 2019, to maiden ship calls at remote locations like Visakhapatnam and Paradip. It was a logistical and administrative challenge to ensure smooth immigration and customs clearances and arrange for port services like gangways and transport, especially for such calls.

J. M. Baxi & Co.'s unique selling proposition (USP) has been reducing the administrative effort on board ships and keeping the interest of its principal at the forefront while dealing with governmental agencies. Constant interaction with port authorities to optimally exploit (Port Community System) PCS 1x resulted in ships having to submit most documents/certificates only once during the season to the first port of call. Immigration authorities were requested to depute immigration staff for en route clearance (to expedite clearance of passengers when they arrive at their first port of call) in exceptional cases. Customs and Port Health Organization (PHO) authorities agreed to accept soft copies of various documentation, which resulted in easing the administrative load on the ships considerably. J. M. Baxi & Co. locations were proactive to assist ships in uploading passenger manifests into Bureau of Immigration website to enable timely generation and downloading of the electronic landing cards (eLCs). We went a step further and standardized the format and colour of the manual landing cards

used at various ports, which hitherto needed different locations to courier different cards to the ship for the same voyage. We can take pride in the fact that other agents have been striving to catch up with us.

The procedure of evaluation and payment of customs duty on items consumed in Indian territorial waters has been a major handicap. J. M. Baxi & Co. has been instrumental in not only drawing up the process but also ensuring that a relatively uniform procedure is adopted for the same across all ports in the country. The cruise and navy cell has handled the implementation of the procedure centrally and has, at times, advised cruise lines on measures to streamline their processes. In fact, this procedure has now been adopted by other agents as well.

J. M. Baxi & Co. has been at the forefront of efforts to open some other minor ports in Gujarat and Maharashtra to cruise tourism, with some states taking the initiative of even promulgating a dedicated cruise policy with decisions and steps favourable to promoting the industry. Cruise lines worldwide are considering including some of these ports in future.

The cruise industry has been adversely affected by the recent outbreak of the COVID - 19. Cruise lines have been forced to redraw their itineraries due to closure of some ports or restrictions on certain nationalities visiting them, most at very short notice. J. M. Baxi & Co. was extremely responsive to enable ships to maintain their original itineraries or adapt to revised ones by getting timely approvals from various authorities. The call at Porbandar in February 2020 could be facilitated only due to the proactive interaction with the Gujarat Maritime Board. Our timely

intervention with local authorities (port, immigration, customs, PHO etc) assistance and support resulted in a very successful call, well appreciated by the ship and principals.

As regards naval ships, J. M. Baxi & Co. till recently provided husbanding services to the Australian and Japanese navies. Competitive bids were submitted to win the contracts for services to the navies of the USA, Republic of Singapore, Republic of Korea and Oman. The highlight of the year was the handling of 16 port calls of the Australian navy at Trincomalee, Colombo, Chennai and Visakhapatnam in the space of three weeks, with four ships and a submarine berthed simultaneously at a port. This stretched manpower and logistical resources to the utmost – again a challenge well met by the local branches at Mumbai, Kochi, Goa, Chennai and head office. Intervention with the US naval attaché and their contracting office in Singapore (through our principals Toll Logistics of Australia) resulted in a major change in the request for quotation (RFQ) document that hitherto claimed exemption from paying port dues for all US navy ships calling at Indian ports.

J. M. Baxi & Co. has procured and manages assets like gangways, yokohoma fenders, jersey barriers, camlock fittings for water and sewage discharge connections, gazebo tents, floating lines of demarcation and a conveyor belt (for smooth baggage handling during turnaround operations of cruise ships). We also have approved vendors at all Indian ports for various operational requirements like garbage offload, crane and heavy lift services, waste disposal etc. This has resulted in significant cost reduction for J. M. Baxi & Co. and, in turn, for our principals as well ■



Port Statistics

SHIPPING & CARGO PERFORMANCE

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

OCTOBER - DECEMBER 2019 (IIIrd QUARTER) 2019 - 2020 / OCTOBER - DECEMBER 2018 (IIIrd QUARTER) 2018 - 2019 (QTY IN MT)

AGRICULTURAL PRODUCTS

	SUGAR		SOYAMEAL		WHEAT		RICE		MAIZE	
	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
No. of Ships called	25	26	5	17	0	0	24	26	2	1
Total Cargo Handled	0.860	0.947	0.123	0.536	0.000	0.000	0.354	0.394	0.080	0.002
Import	0.370	0.678	0.020	0.000	0.000	0.000	0.005	0.004	0.080	0.002
Export	0.490	0.269	0.103	0.536	0.000	0.000	0.340	0.390	0.000	0.000

FINISHED FERTILIZERS & FERTILIZER RAW MATERIALS

	UREA		SULPHUR		ROCK PHOSPHATE		DAP		MOP	
	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
No. of Ships called	98	51	15	17	69	46	39	39	25	33
Total Cargo Handled	4.278	2.213	0.452	0.355	2.330	1.910	1.480	1.730	0.824	1.012
Import	4.278	2.213	0.342	0.301	2.330	1.910	1.480	1.688	0.824	1.012
Export	0.000	0.000	0.110	0.054	0.000	0.000	0.000	0.042	0.000	0.000

COAL

	THERMAL COAL		COKING COAL		MET COKE		PET COKE		ANTHRACITE COAL	
	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
No. of Ships called	182	264	239	182	26	32	65	38	12	12
Total Cargo Handled	10.568	15.768	13.214	12.879	0.746	0.847	2.308	1.654	0.342	0.396
Import	5.000	7.164	13.163	12.525	0.746	0.847	2.134	1.107	0.342	0.396
Export	5.568	8.604	0.051	0.354	0.000	0.000	0.174	0.547	0.000	0.000

STEEL & METALLURGICAL ORES

	STEEL PRODUCTS		SCRAP METAL		CHROME		MAGNESIUM ORE		IRON ORE	
	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
No. of Ships called	327	309	32	22	22	19	21	22	413	169
Total Cargo Handled	4.665	3.150	0.871	0.622	1.121	1.291	0.497	0.481	21.639	16.038
Import	1.475	2.096	0.534	0.500	0.947	1.026	0.497	0.481	5.898	8.104
Export	3.190	1.054	0.337	0.122	0.174	0.264	0.000	0.000	15.741	7.934

LIQUID CARGOS AND LIQUIFIED GASES

	CRUDE OIL & OIL PRD		CHEMICALS		EDIBLE OIL		ACIDS		LIQUIFIED GASES	
	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
No. of Ships called	1562	1440	567	564	341	339	178	176	470	441
Total Cargo Handled	95.275	94.462	6.159	5.706	3.899	3.909	2.124	1.888	12.271	10.141
Import	69.747	70.943	3.503	2.824	3.894	3.899	2.124	1.834	12.128	10.019
Export	25.528	23.519	2.656	2.882	0.005	0.010	0.000	0.054	0.143	0.126

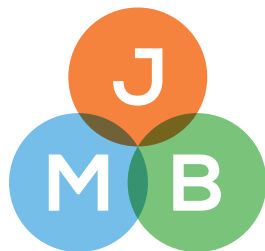
INDIAN PORT PERFORMANCE - Q3 & FY 2019 - 20 THROUGHPUT (QTY IN MILLION TONNES)

OCTOBER - DECEMBER 2019 (IIIrd QUARTER) 2019 - 2020 / OCTOBER - DECEMBER 2018 (IIIrd QUARTER) 2018 - 2019 (QTY IN MT)

Ports	Types of Ports	NO. OF SHIPS		LIQUID CARGO		BULK CARGO		CONTAINERS (TEUS)		TOTAL CARGO *	
		III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18	III rd Qtr'19	III rd Qtr'18
Kandla	■	650	502	3.898	3.514	8.635	7.327	110,159	54,769	12,533	10,841
Mumbai	■	517	451	9.498	7.517	1.357	1,559	-	-	10,855	9,076
Nhava Sheva	■	187	173	1.580	1.804	0.000	0.282	1,195,164	1,292,268	1,580	2,086
Mormugao	■	179	181	0.142	0.295	4.159	4.420	-	-	4,301	4,715
Mangalore	■	386	364	6.962	7.885	2.632	3.480	-	-	9,594	11,365
Cochin	■	189	180	6.293	5.451	0.415	0.386	153,897	148,177	6,707	5,837
Tuticorin	■	234	195	0.436	0.573	4.210	4.881	178,239	178,349	4,647	5,454
Chennai	■	204	242	3.424	4.647	1.043	1.504	329,384	398,078	4,467	6,151
Ennore	■	195	228	1.255	1.153	5.538	7.609	25,726	23,920	6,792	8,762
Vishakhapatnam	■	556	317	6.055	4.074	11.536	8.218	123,878	113,572	17,590	12,292
Paradip	■	548	530	9.452	11.058	20.208	18,184	-	-	29,660	29,242
Haldia	■	508	548	3.952	3.386	5.621	6.900	40,860	47,234	9,573	10,286
Kolkata	■	71	22	0.280	0.281	0.010	0.071	169,593	158,366	0,290	0,352
Gangavaram	■	128	47	0.000	0.000	8.225	3.100	-	-	8,225	3,100
Pipavav	■	120	108	0.193	0.211	2.094	1.598	230,794	250,711	2,287	1,809
Mundra	■	709	650	6.105	7.800	11.401	11.375	1,061,852	1,110,722	17,506	19,175
Dahej	■	181	195	5.898	5.715	2.335	3.505	-	-	8,234	9,220
Hazira	■	174	191	1.533	1.037	2.482	4.783	156,741	146,384	4,015	5,820
Navlakhi	■	44	57	0.000	0.000	2.481	3.537	-	-	2,481	3,537
Kakinada	■	213	188	0.936	0.686	2.983	3.290	4,420	3,658	3,919	3,976
Sikka	■	437	439	35.182	35.508	0.000	0.044	-	-	35,182	35,552
Vadinar	■	140	117	13.799	12.945	0.000	0.000	-	-	13,799	12,945
Krishnapatnam	■	203	229	0.406	0.420	8.346	10.553	141,897	132,822	8,752	10,973
Kattupalli	■	9	1	0.000	0.000	0.079	0.000	181,617	147,661	0,079	0,000
Bhogat	■	7	10	0.514	0.680	0.000	0.000	-	-	0,514	0,680
Total Vessel Calls at all ports		6789	6165	117.793	116.640	105.788	106.606	4,104,221	4,206,691	223.581	223.246

■ Major Port ■ Non-Major Port

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



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