J. M. BAXI GROUP

TIDINGS

ISSUE XXIV

JANUARY - MARCH 2019

January - March 2019

Newsletter Issue XXIV

Table of Contents

J. M. BAXI GROUP

TIDINGS

EDITORIAL TEAM:

Mr R. K. Ganguly
Cdr. Sunil Dhulekar
Mr Keki Master
Mr Rajnish Khandelwal
Capt. Tamal Roy
Mr Siddhartha Roy
Capt. Parmeet Bawa
Mr Samir Shah
Mr Nandan Yalgi
Mr. Ashish Sharma
Mr. Ajay Tolani

DESIGN TEAM:

Ms Dhara Kapadia
Mr Bhushan Ghatkar
Mr Jayakumar Ramajayam
Mr Amit Sawant

COVER PAGE:

Wan hai lines ship is berthing at Visakha Container Terminal

* All maps are for representation purpose only

J M BAXI GROUP

A: Dubash House, 15, J. N. Heredia Marg, Ballard Estate, Mumbai - 400 001. Maharashtra. INDIA.
B: +91 . 22 . 22104444 | F: +91 . 22 . 22616222 | E: corp@jmbaxi.com | W: www.jmbaxigroup.com

From the Quarter Deck

Dear Friends and Colleagues, Here's wishing you and your family a happy, peaceful and prosperous 2019. Surely because of how 2018 went, we all do need the very best of wishes.

Looking back, 2018 has been an incredible year. The rise and the fall of crude oil prices, the tariff war between the US and China, the Brexit conundrum, the absolute confirmation of the 2020 low sulphur emission guidelines for global shipping – to list a few of the global events. India too saw some major developments, such as the implementation of the GST and the resolutions on the non-performing assets, especially in the steel sector with Arcelor Mittal likely to get ESSAR Steel, Tata Steel getting Bhushan Steel, Jindal Steel getting Monnet Ispat, and Vedanta Group getting Electrosteel Steels Ltd (ESL).

The collapse of IL&FS and the subsequent financial issues added to the already strained circumstances of Indian banks. To top all this, in December 2018, there were riots in Paris and talks and rumours about impeaching the US president. Truly, 2018 must have been great for the media with such eye-grabbing headlines almost every day. However, since we are in the maritime, logistics and infrastructure space, such upheavals affect our principals and clients. Trade prefers stability and as the J M BAXI GROUP, we endeavour to provide stability as much as possible within our sphere. We have built our relationships on trust and confidence. We will continue down that path with a strong renewal of our commitment as our New Year resolution for 2019.

Amidst all this turmoil, India has remained relatively stable. Cargo volumes, across all classes of cargo, have grown. Almost all the ports across the west and east coasts of India have seen an upward trend. Some have fared better than others, with Kandla, Paradip and Vizag leading the growth charts. Our terminals at these ports – KICT, PICT and VCT – are correspondingly showing robust growth.

KICT has now begun to attract mainline services, as they have started to include Kandla in their rotations. This is happening mainly because KICT is the most cost-effective terminal in the region for the export–import traders. With the new services starting at Kandla, we will see a twofold jump in KICT volumes.

Regarding PICT at Paradip, friends, let us pause a minute. Give our team there a small pat on the back. PICT was commissioned in record time, became operational in record time and is now handling multiple commodities, which as we all know is probably the hardest type of terminal to run. The most gratifying aspect of PICT is that we can truly respond to the needs and demands of our customers. Steel, fertiliser, aluminium and reefer traffic amongst others are looking at PICT as part of their logistics and value chain. Well done, PICT! It won't be too long before you should be a 10 million tonne facility.

VCT at Vizag continues to do what it does best. It is the most efficient, productive and cost-effective container terminal on the east coast of India. In 2019, we will start to expand VCT into its second phase and by 2020, it will be a million+ TEU terminal.

Also, 2019 will see Portall, the port community system, implemented at every port in India. It is indeed a matter of pride to the maritime citizens of India that the government of India has rolled out a digital port community system that is perhaps the most advanced in the maritime world. This will have a deep impact on the level of services that will be available and given to shipowners calling at Indian ports.

One of the silent but large developments has been the award of gas distribution network bids for 45 cities and areas across India. The winning bidders will set up the necessary infrastructure including pipelines for distributing gas to users.

This development alone will result in major growth of gas consumption. As it has been stressed in the past on these pages, the transportation and handling of gas will certainly be an opportunity that we will continue to track.

The year 2018 saw several government initiatives which were aimed at enhancing the transportation of domestic cargo through the coastal route. 2019 will continue to surge in coastal transportation of containers. Furthermore, bulk and break-bulk products are also being switched to coastal transportation routes instead of rail and road. Undoubtedly this is an area of opportunity which our group companies will be actively pursuing.

Moreover, 2019 will also be the year when we as agents must ensure our capability and capacity are enhanced to address the needs of our principals. The imminent challenge is that ships will need to use low emission sulphur fuel or gas or be fitted with scrubbers. We believe that this will be one more opportunity for us to respond proactively to the needs of our principals.

Lastly, 2019 will see general elections in India around May or June. In the next issue of Tidings, specific dates will indeed be known.

Before I conclude, it is my pleasure to share with you the opening of Thirsty City 127, the best retro resto bar in Mumbai. Definitely worth a visit

Till next time ■

Krishna B. Kotak
Chairman - J M BAXI GROUP

Agency & Services

The Story Of Edible Oil: An Indispensable Item For Any Meal

It costs India roughly $10.5 billion in annual forex outgo, yet Edible Oil hardly attracts the kind of attention that crude oil, gold, mobile phones, coal and other big-ticket import items do. Just like petroleum, it is also shipped in tankers — typically Handymax/ Supramax vessels of 15,000 to 50,000 tonnes in capacity — and processed in giant refineries. But unlike regular "commodities", it has strong regional patterns and preferences dictating its consumption. And most importantly, it's indispensable to any meal even after being a rare food article that has a record of modest price rise in the recent times.

According to data of Euromonitor International, the Edible Oil category which had overtaken Dairy to become the largest packaged food segment a few years ago, has now grown to 25.6 per cent to cross the Rs. 1.3 trillion mark in 2017. This is the first time any packaged food category item has crossed the mark. However, Edible Oil is largely imported in India; out of 20-21 million tonnes of annual consumption (next to China's 34-35 million tonnes) about 14.5-15.5 million tonnes, i.e. over 65 % of it is imported.

Introduction

Traditionally, Indians have broadly used two types of edible oils. The first was 'vegetable' oil obtained from crushing local oilseeds — mustard in northern and eastern India; groundnut in Gujarat, Maharashtra, Karnataka and Andhra Pradesh; sesame and groundnut in Tamil Nadu; and coconut in Kerala – in what was known as "Kachchi-ghanis" (bullock-driven cold presses). The second cooking oil medium was 'animal' fat, mainly desi-ghee prepared from milk.

India's monthly requirement is about 1.9 million tonnes and operates at 30 days stock against which currently holding stock of 2.662 million tonnes, equal to 42 days requirement.

Industry and Process

The first major market revolution came in 1937 when Hindustan Unilever (then Lever Brothers) launched 'Dalda'. This was essentially vanaspati or hydrogenated vegetable oil. The purpose behind hydrogenation by adding hydrogen to convert unsaturated liquid fats into saturated solid fats was to harden and raise the melting point of the oil, which yielded a product mimicking desi-ghee. The higher melting and smoke point (at which the molecules start breaking down) made vanaspati better suited for deep frying than normal vegetable oils. The samosas and vadas fried in vanaspati were crispier. Cooking in vanaspati also extended the shelf-life of food, which was a huge deal when only a few homes could afford refrigerators. Above all, it was cheap; even today vanaspati retails at under Rs. 80 per kg, as against Rs. 350 plus for ghee.

By the 1950s, many others from DCM (Rath) and the Sahu Jains (Hanuman), to Wipro (the company was originally Western India Vegetable Products Limited) had their hydrogenated oil brands. They all marketed it as "vanaspati ghee", only to technically distinguish it from the desi-ghee (a la vegetable-fat based "frozen desserts" versus "real" ice-cream). The second major breakthrough revolution happened with the emergence of solvent extraction and refining. These processes, unlike normal expeller-pressing and filtering, involved use of chemicals. While with mechanical pressing, only 85 per cent of the oil from groundnuts could be recovered, the use of a solvent (edible-grade hexane) could take it to 99 per cent by squeezing out even the residual oil in the expeller cake. The raw edible oil was further refined, i.e., de-gummed (to remove gums, waxes and other impurities), neutralised (to remove free fatty acids), bleached (to remove colour) and de-odourised (to remove volatile compounds) by treating with sodium hydroxide and other chemicals.

The first-ever solvent extraction plants came up during the late 1940s, mostly in Gujarat's Saurashtra region, for extracting oil from groundnut cake. By the early 1950s, Ahmed Umar Oil Mills in Mumbai had also introduced refined groundnut oil under an iconic Postman brand. In 1962, a company called Foods Fats & Fertilisers Limited established a solvent extraction plant to produce oil from rice bran, a by-product of paddy milling. This was at Tadepalligudem in West Godavari district of Andhra Pradesh, considered a rice bowl. But the real solvent extraction boom took place much later with the extensive soybean cultivation in Madhya Pradesh, Rajasthan and Maharashtra from the late-1970s onwards. With this technology, you could process even low oil-bearing materials like soybean, rice bran and cottonseed cake, which wasn't possible with mechanical pressing.

Agency & Services

Market Take-off

This period also coincided with the "Yellow Revolution" spearheaded by the National Dairy Development Board (NDDB). Acreages under mustard, groundnut, soybean, and also other oilseeds like sunflower and safflower rose considerably. Refined sunflower oil particularly saw an explosion of brands: ITC's Sundrop, Hindustan Lever's Flora, and Sweekar of Bombay Oil Industries (which also sold Saffola refined safflower oil). The NDDB too, had a range of both filtered and refined groundnut, mustard and sunflower oil, marketed in tetra-packs under the Dhara brand. In the early to mid-eighties, India was importing some 1.5 mt of edible oils a year. With domestic oilseeds production climbing from 12.65 mt in 1987-88 to 21.50 mt in 1993-94, the country became near self-reliant. However, all that changed with liberalisation. The third phase of the Indian edible oil saga is coterminous with the surge in imports, from just over 0.1 mt in 1993-94 to 4.2 mt at the turn of the century and 8.4 mt by 2010-11. In October 2018, oil imports totalled 14.52 mt, mainly comprising palm (8.50 mt), soybean (3.05 mt) and sunflower (2.52 mt).

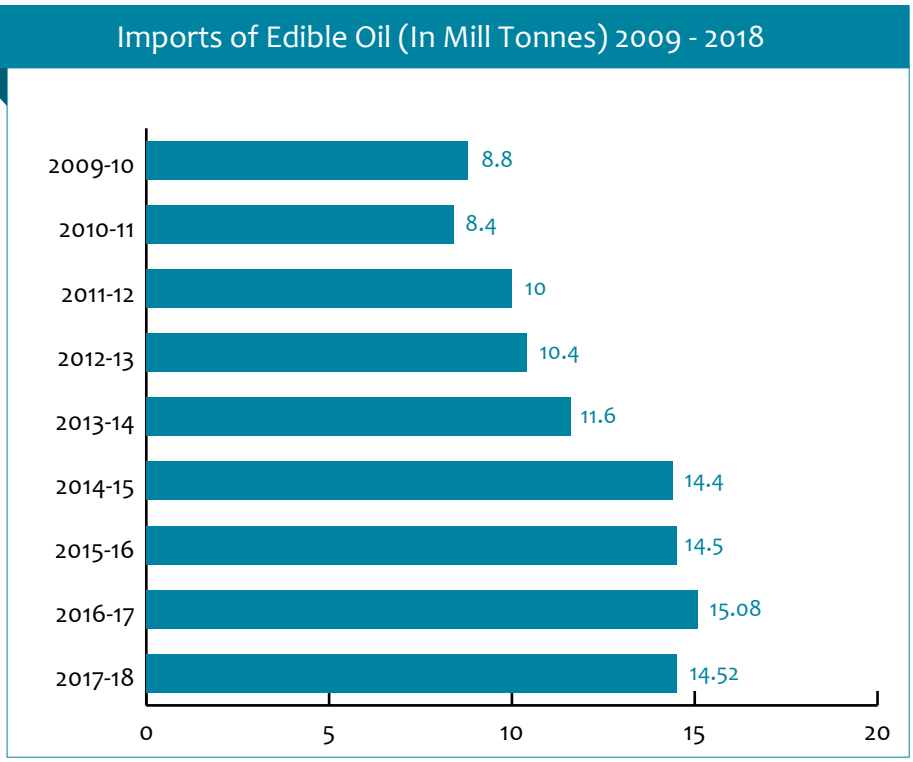
Till April 1994, the import of edible oils was canalised through STC, largely as a matter of Government of India policy for catering to the consumption needs under the Public Distribution System (PDS) and for supplies to the domestic industry. The import of RBD Palmolein was placed under OGL, followed by the placement of the other varieties in March 1995. The volume of import started increasing rather rapidly thereafter. The nature of the industry itself has changed as a result of this huge shift to imported oils. Much of it today comprises not expeller or solvent extraction units processing domestically grown oilseeds, but mere refineries importing crude palm, soybean or sunflower oil. There are many corporates now - Ruchi Soya, Adani Wilmar, Cargill India, Bunge India, Liberty Oil Mills, Emami Agrotechand JVL Agro - each with annual refining capacities exceeding 0.5 mt and plants near ports such as Mundra, Kandla, Mangalore, Chennai, Krishnapatnam, Paradip and Haldia.

Evolution of Trends

While all this massive quantum of imports in tanker vessels may have turned edible oils into a "commodity" business, what is interesting is that it has not totally obliterated region-specific consumption patterns and even local oils. Soybean oil, for instance, is predominantly consumed in the North and the East, but in both regions, mustard remains the first choice. Sunflower oil, by contrast, is popular mainly in the South. In the West, sunflower and soybean have become the major oils, yet not eliminated groundnut and cottonseed. Sunflower was already being grown in Karnataka, Andhra Pradesh and Maharashtra, just as soybean was in Madhya Pradesh. Consumers south of the Vindhyas and MP upwards, therefore, knew about the two oils. Imports only expanded the markets that domestic production had initially seeded.

That still leaves the mystery of palm oil: where is all the 9.5 mt going? Although some of it gets sold as palmolein through the public distribution system (especially in the South and states like Odisha), not even a third of the palm oil is directly consumed in home kitchens. "It is predominantly used by the food industry - for everything from mithais, namkeens, bread and biscuits to noodles - and quick-service restaurants. It is the cheapest oil and, moreover, amenable to deep as well as multiple frying. Vanaspati manufacturing, too, is now entirely based on palm oil" as pointed out by Mr. Chaudhry, who worked at Cargill's vegetable oil trading desk at Geneva. Being cheap, palm oil makes an ideal choice for adulterating other oils, from mustard and groundnut to sesame. "It is a neutral oil, with no aroma of its own and can easily mingle with other oils. Whenever prices of other oils go up, you'll see a spurt in palmolein sales, much of which is for so-called blending," admits a refiner ■

Imports of Edible Oil (In Mill Tonnes) 2009 - 2018



(to be continued in Issue XXV)

In Conversation

Let's Get To Know BIRGIT MARIE LIODDEN

Q: Would you tell us a little about yourself and the exceptional work you have been doing around the world?

Ans: I started in the shipping industry 13 years ago working as HR assistant in the head office of Wilhelmsen group. I gradually took on more responsibilities, eventually became global project manager. On the side I started working as a volunteer for a local Norwegian organisation for young people in maritime industry called YoungShip. I saw that it had the potential to become International ...so I ended up leaving my job as global project manager in Wilhelmsen to start my own company and to build up YoungShip to become an international organization.

So, at the age of 28, I was running my own project management company in shipping and working on YoungShip parallelly. The first to basically fund my living cost and the second to create lasting change in the maritime industry.

Through four and a half years, YoungShip went from being a local and regional organization to becoming the leading global body for young people in shipping. While creating it we based the whole organization on a few basic principles of Diversity, Innovation, Entrepreneurship and sustainability. We managed to get attention from the big leading maritime bodies, I was invited to speak at the IMO and International Chamber of Shipping and also OECD amongst others and I was given the opportunity to challenge the seniors and established industry with the young perspective. I challenged them a lot on the lack of visibility and attractiveness of the industry, and the lack of young and female role models. I've been a vocal

Ms. Birgit Marie Liodden, Activist for transparency, diversity and entrepreneurship. She is a dedicated spokesperson for young professionals and women in global shipping. With a passion for the shipping industry and dedication to promoting this industry to the younger generation. She is a true visionary who challenges established truths, and is not afraid to speak her mind and raise her voice.

challenger advocating people to put women more on the agenda and see the Next Generation as the key tool for creating more innovation and visibility. After 4 and half years I was appointed as first female director of one of the world's leading maritime exhibitions called Nor-Shipping and also the first leader below the age of 50 (laughs), I was 31. I did the same exercise there with respect to integrating my values, and I told them that if they wanted me in the position then they also had to commit to using that Exhibition to promote Diversity and Sustainability and improving the industry to suit the next generation.

I developed a concept called disruptive sustainability from 2014 out of Norway and it got a lot of international attention. We looked at how the maritime industry could deliver on the UN Sustainable Development Goals; We invited and challenged the young generation of entrepreneurs, students and professionals to come up with their solutions and ideas to create new maritime business models and to solve societal problems linked to the maritime and ocean sector.

And parallel to this, I have been very been much involved in the Norwegian board of the WISTA – Women's International Shipping and Training Association. We have also done quite a few pilots from Norway on new concepts to fuel diversity - to set up the first female mentoring program. We also created a big conference on diversity leadership for sustainable maritime industry called Waves of Change, and on top of that last year I fronted #MeToo in global shipping.

And then in Spring I was hired by Oslo Business Region, a company owned by the Capital of Oslo working to fill gaps in the start-up ecosystem, connecting start-ups with the established industries. The untapped potential of utilizing our leading ocean clusters of technology and innovation capabilities, to mobilize Oslo to become the world's capital for ocean entrepreneurs focused on tech and sustainability. I'm heading the business program for Oslo as European Green Capital 2019, and the Ocean Entrepreneurs' Capital is being launched this year as part of this project. As a part of it we are also building an alliance of creative ocean societies and we will invite Mumbai to join alongside Oslo. We are planning now to build a stronger cooperation on sustainability focus between Oslo and Mumbai.

In Conversation

Q: Any projects you are looking at exploring in the Indian Environment –like bringing young ship to India?
Ans: So, we have had a couple of meetings in Mumbai where one of the ideas is for me to go back home to Youngship International and connect them with contacts here to look at the potentials for establishment of Youngship in Mumbai. We also have a couple of new pilot projects and really good tools for gender diversity coming out of Norway and one of them will do their first international pilot with the maritime industry, we do hope that India will be a pilot country among a few others.

We are looking at innovative ways to tie new alliances between Mumbai and Oslo, focusing on ocean entrepreneurs, women, technology and new areas for the maritime industry to identify new business areas based on society problem-solving.

Q: So, tell me something that youngsters reading this might be motivated by: what does it take to be nominated to such a forum, what's the kind of work somebody needs to do, and should this be an ambition every youngster has?

"I know that you were shortlisted for the Young Global Leaders at the World Economic Forum."

Ans: I think the best ambition for young people is to find something that they want to change in the world. I mean that for me it's always been about identifying gaps that I see that don't work properly where there is room for improvement and then go in and actively offer myself as a resource to fill the gaps. I think that finding those areas where you really feel that your purpose driven, set your footprint, create a different future, that is what has been the motivation that has pulled me through a lot of hard work, a lot of obstacles and a lot of challenges. As long as I wake up every day and I know that I have a mission then it's okay, then I can cope with anything. So, I would say that I haven't had the big ambitions of becoming someone or whatever, but I have had the big ambitions of changing things. And I think that was also the background for me to be shortlisted – nominated for the Young Global Leaders by WEF was because I have done a lot of "pay it forward" initiatives. I see myself more as a tool for creating a good change.

Q: Can you share with us your source of motivation? Any mentors on your journey?
Ans: My key motivation comes from being useful and help making a difference towards a better society and improving the maritime industry. My key mentors have been shipowner Ms. Elisabeth Grieg, who was the first female president of the Norwegian Shipowners Association, and who is a strong advocate for sustainability, women and youth. The other is Mr. Roberto Giorgi, the former owner and Chair/President of V. Ships. And others who have been instrumental advisors or sources of inspiration on industry innovation are KD Adamson of Futurenautics, Mr. BjørnHaugland of DNV GL, and other female leaders across the world such as Sanjam & Sumeet of Wista, India. I was so Lucky that very early on in my career, I had some key heavy profile professionals offering to become my mentors. So, I have had both male and female mentors on the more senior level and then in the last, past few years I have also recruited younger mentors for myself to mentor me on digital developments.

And on the third PART for the past 8 years I have been offering myself as a mentor for young females in the industry. I'm currently mentoring two Indian girls from Goa and Kerala – one girl from Pakistan; one girl from Djibouti and a couple of others. And I would say that mentoring is really the best way of bridging the gap between generations

Q: What according to you is the single biggest task of young leaders of the global maritime space?
Ans: I think the biggest task for the young generation/leaders is basically to bring their competence in digital technology, new mindset and collaborative approach and more sustainability-oriented attitude on you know delivering more value to the society through the maritime industry.

Q: Where do you want to be in the next 10 years?
Ans: Omg! I don't have a school education, I left school at 16 and started working so my original goal was to become a secretary So I Think I have already reached far far beyond my expectation , but I would say that in ten years I hope that I have contributed significantly at influencing the industry with both: sustainability and inclusion of the next generation and the most important part for me to really have helped out making the maritime industry a pioneer and a star industry with gender diversity

Q: To conclude, what is your message to the next generation:
Ans: I would say for the Next Generation that the Young Generation now need to create the change that they want, so they need to step it up and take the lead and they need to challenge the established industry. They need to show the value proposition to the established industry and to fully relay the learning that you need to accelerate and build the right competence and insights as a leader.

Q: I think it's a great message to leave the youngsters with … to look for a goal/mission in life which will take you beyond short-term success/ failure.
Ans: Ya because that's so shallow I mean titles and possessions and power and money yeah that's nice but it's more shallow. I think if you have that sense of commitment that you do something for society that you really believe in with your heart – that this is some area that you can make it – you know put your foot stamp on it and work with others, collaborate, to achieve it ■

Logistics

BOXCO Logistics: A Provider Of Choice For Multi-Modal

Logistics In INDIA

The growth in infrastructure in India brings with it a huge set of logistics challenges, especially in the area of over dimensional and heavy lift cargo transport. The ever increasing number of flyovers and signboards in almost every town and city makes it extremely difficult to move even packages with moderate dimensions leave aside the super ODC's.

The sizes of process equipment meant for various manufacturing industries are also growing exponentially with the increase in capacities. Engineering and fabricating companies are forced to look at multiple modes of transport to deliver these packages to their final job sites.

Boxco Logistics with its years of experience and engineering expertise becomes a partner of choice for handling cargo movement by using multi-modal mode of transport.

Boxco has been continuously moving over a million tonnes of project cargo throughout the country for over 10 years now. These movements have been meticulously handled with proper engineering studies and route surveys conducted on each of these movements. The company therefore has an extensive data base of most of the routes and especially the routes from major manufacturers in India to the ultimate destination.

In the recent past the following movements have been executed by Boxco Logistics which involves movement on Boxco's own Hydraulic axles, Boxco's roll on/off and lift on/off capabilities and ocean freight.

- **BPCL Refinery Cochin Movement ex-GR Engineering**

Scope: Movement of equipment with weights ranging, shipping from Mumbai port to Cochin port, roll on to Barges, movement from jetty close to BPCL Cochin, roll off on to Boxco's SPMTs and shifting to final site.

BPCL REFINERY COCHIN MOVEMENT EX-GR ENGINEERING

Logistics

ISGEC MOVEMENT OF EQUIPMENT TO IOCL HALDIA

◊ **ISGEC movement of equipment to IOCL Haldia**

Scope: Shifting from ISGEC Dahej to Adani Terminal Dahej. Roll on to AAL vessel at Dahej, freight to Haldia terminal, roll on and transport on Boxco Hydraulic axles to Haldia.

◊ **Punj Lloyd movement of Flare vessels to IOCL Haldia**

Transport of Flare vessels from Prabha Industries Baroda to Hazira Terminal, port handling and freight from Hazira to Haldia, port handling and transport to IOCL Haldia.

◊ **Fabtech Movement to IOCL Haldia**

Scope: Transport of equipment ex-Chakan Pune to Hazira. Port handling and Freight to Haldia, Port handing and transport to IOCL Haldia.

Customers look for companies that have a strong equipment base, expertise in port handling capabilities and excellent relationship with Project Carrier and Boxco is a perfect fit in all of these aspects ■

PUNJ LLOYD MOVEMENT OF FLARE VESSELS TO IOCL HALDIA

FABTECH MOVEMENT TO IOCL HALDIA

Logistics

BOXCO Logistics Moves The Worlds Largest CCR Reactor

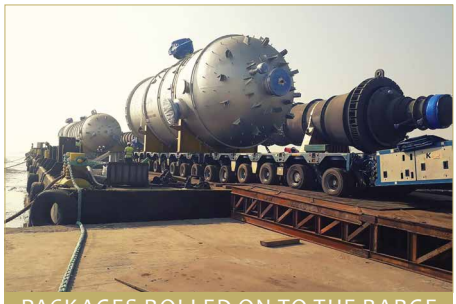
BOXCO Logistics moved the worlds longest CCR reactor for M/s Godrej & Boyce. The package which is 83.65 metres in Length 5.33 metres in width and 6.15 metres in height was rolled on to our barge at the Godrej Jetty in Dahej using Boxco's own SPMTs.

These packages are meant to be shipped to the Dangote refinery in Nigeria on a Biglift vessel, J. M. Baxi & Co. are the agents for this vessel as well.

This project was prestigious for Godrej & Boyce as it was the first shipment effected from the Godrej jetty and hence was monitored closely by the Godrej Management.

THE CCR REACTOR WITH OTHER CARGO ON BARGE SAGAR 300 SAILING TO MUMBAI

This is the first shipment from Godrej's newly built jetty and the challenge was to berth the barge with very less draft. The barge had to be dragged into the berth. The operation required accurate planning as siltation was happening fast. Our team had to physically measure the tide and choose the exact tide for berthing and sailing.



PACKAGES ROLLED ON TO THE BARGE

OPERATIONS TEAM WITH THE PACKAGE

There was a challenge in loading the reactor on the saddle, the files on the reactor were going beyond the structural limit of the SPMT unit, so we had to use special extendable beams for the loading.

These packages were ready to move on the 20th of November 2018, we mobilized our fleet of 56 SPMTs and two power packs which had just completed a movement in Mangalore to Dahej. We also organized the steel plates, the wooden slippers and the RAMP required for the Ro-Ro operation and mobilised 2 x 50 MT Cranes to Dahej. We were ready with all the equipment required by the 24th of November 2018.

The Barge Sagar 300 was towed to Dahej and it reached there on the 25th of November 2018. Since this was the first movement from the Godrej Jetty, the client was in the process of obtaining permissions from customs and Gujarat Maritime board.

A combination of 16 + 16 and 12 + 12 SPMT axles were configured for moving the CCR Reactor. Godrej loaded the reactor on the SMPTs on the 4th of December 2018. The reactor was eventually rolled on to our barge and stolled down within 4 days. The other 4 packages too were rolled on to our barge within 4 days.

The barge sailed out from Dahej on the 21st of December 2018 and reached Mumbai port on the 26th of December.

Conducting such an exercise in a jetty, which was never used before, brings with it its own set of challenges. The Boxco teams experience and expertise managed to complete the operation with a picture perfect precision ■

Infrastructure

ODC Shipment Volumes Surge At MICT

Mumbai International Cargo Terminal handles over 500 teus of exports each month out of which 30% is ODC cargoes.

OVER DIMENSIONAL CARGO OPERATIONS @ MICT

MICT caters to export clients of high repute with specialised requirements for ODC cargo handling. MICT understands client's infrastructural and equipment requirements and accordingly design a suitable work model for them. MICT's expertise in safe and effective handling of the ODC cargo shipments gives clients the requisite confidence. Various clients are contributing to our ever-growing export ODC volumes due to our operational expertise, seamless service & customer centric approach.

Example in case for a specific customer having cargo as pipes, a custom-made forklift extension was engineered by our very efficient engineering team giving the required edge to operations staff. This extension streamlined the handling operations of these pipes, to lift and stuff the cargo in dry containers. The client was overwhelmed with our efforts in providing an innovative, effective and efficient solution to ease operations and enhance stuffing speeds ■

Infrastructure

Technology

Treatment Of Dairy And Powder Plant Wastewater

Provided By ARYA WATER TECHNOLOGIES (AWT)

Water resources are coming under immense pressure due to the all-round economic growth, global warming, urbanization and incessantly rising water pollution levels globally. Lack of proper water treatment and management systems only accentuate the catastrophic effect on the entire civilization. The problem is expected to become even more severe in times to come.

Arya Water Technologies (AWT) is a leading provider of innovative solutions and technology used in industries such as chemical, electroplating, food and beverages, textiles, dairies, distilleries, breweries and others. We offer a complete basket of conventional and next generation technology-based offerings to address a spectrum of turnkey water treatment solutions across diverse segments. For the Dairy industry, AWT has the capabilities to execute operation by using a combination of equipment and speciality chemicals to meet the stringent norms. We provide wastewater treatment with advanced technologies. With our complete understanding of the nature of effluent, pollutant fingerprinting, knowledge on processing raw material and its characteristics; we are efficient in handling the worst effluent streams.

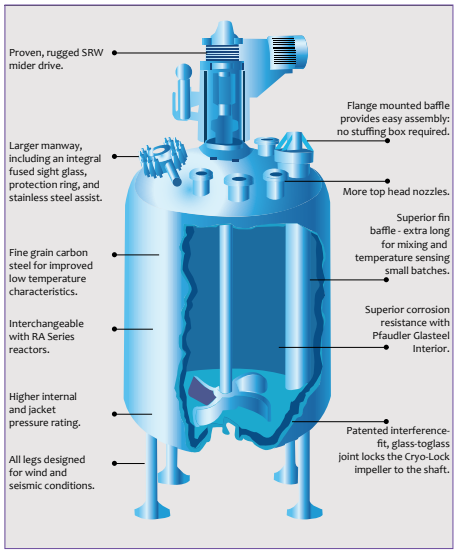


Fig 1- Continuous Stirred Tank Reactor (CSTR)

FIG 2- DISC THICKENER

Typical Facts From Dairy Waste Water Treatment Case

AWT provides advanced process scheme comprising of anaerobic and aerobic reactors for efficient treatment of dairy and powder plant wastewater.

The process is designed to handle the complex loads being generated in the dairy and powder plant sector. These loads are highly organic and require high degree of treatment to impart sufficient oxygen levels to break the complex bonds. With inhouse design of anaerobic - aerobic treatment steps, the desired degree of treatment can be achieved.

AWT bagged an order for 100 KLD ETP of Mehta Milk Proteins (MMP) at Kolhapur in December 2017. Mehta Milk Proteins is the new unit of Mehta Dairies better known as brand “Sphurti” in Dairy sector. The project consists of establishing the powder plant facility at Kolhapur; manufacturing process of which shall result in the generation of high organic wastewater. The treatment of such highly contaminated wastewater requires special treatment to meet the discharge norms as per the pollution control board.

Technology

FIG 3- DECANTER CENTRIFUGE

AWT managed to bag the order with the technical pitch and advanced process scheme. In the project, we have given state-of-the-art wastewater treatment system. The process scheme consists of new age equipment such as Continuous stirred tank reactor (Fig -1) for anaerobic degradation, disc thickeners for sludge conditioning (Fig -2) and decanter centrifuge (Fig -3) for a clean solid liquid separation. Activated sludge process is used for aerobic treatment.

The plant shall achieve 95-98% reduction in pollutant loads and save the serene environment of the site from wastewater management hassles.

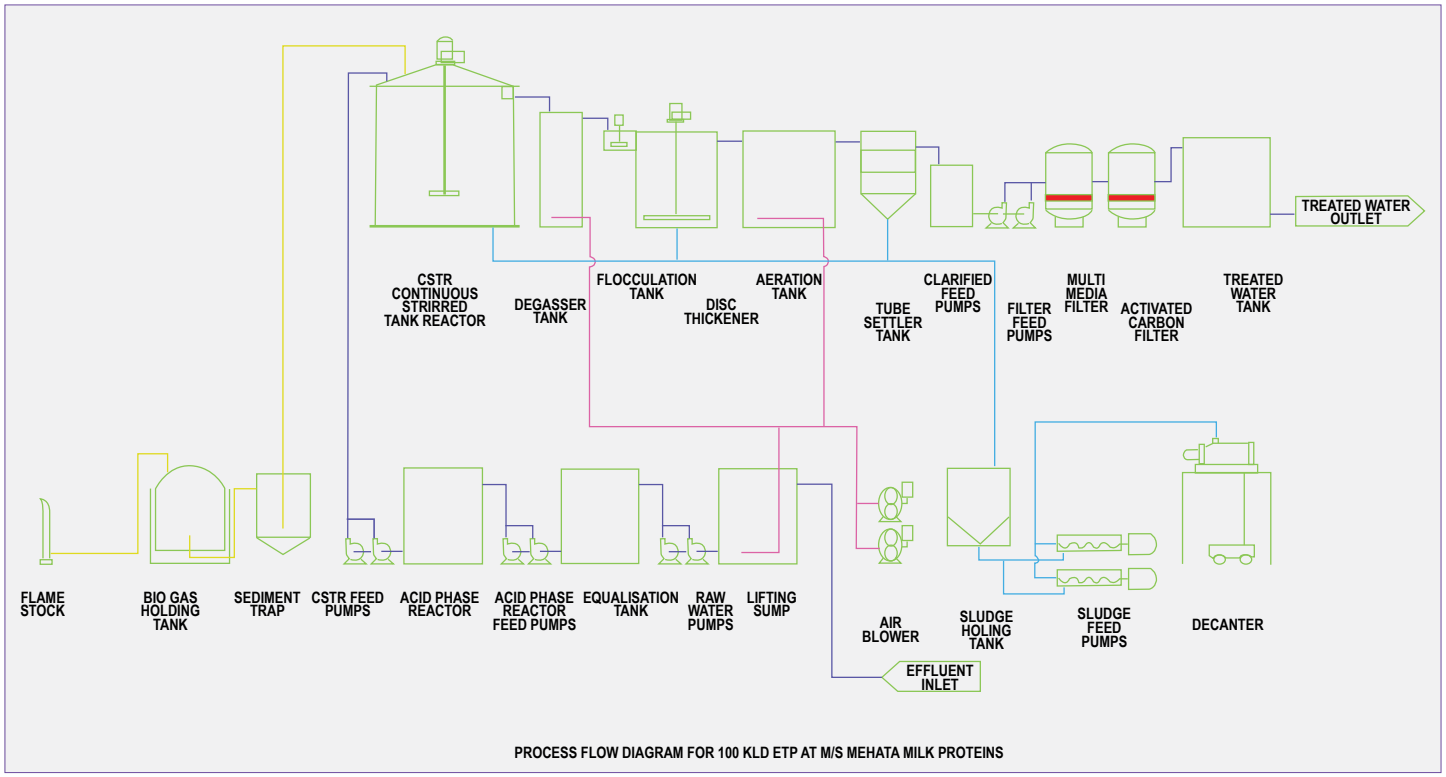
Advanced Technology At A Glance

In a typical wastewater treatment plant, pollutant loads are removed by conventional processes which leads to higher footprints and lesser treatment efficiencies. By using CSTR, anaerobic degradation is enhanced which leads to better design and cost savings in downstream aerobic process.

Disc thickener is helpful in biomass separation with added advantage of higher pollutant load removal. Decanter Centrifuge is a special solid liquid separation equipment which offers clean operation, better sludge recovery and consistency. Schematic is shown at the bottom of the page.

Features of the project are listed as below

1. State of the art treatment process
2. Lesser footprint
3. Enhanced organic degradation in anaerobic treatment thereby saving on air requirement in aerobic treatment
4. Best in class Sludge Management ■



PROCESS FLOW DIAGRAM FOR 100 KLD ETP AT M/S MEHATA MILK PROTEINS

Technology

Evolution of ARYA INFOSYSTEMS

On the eve of completion of its 100th year of existence, the J M BAXI GROUP embarked on the path of 'Digital Transformation' by drawing inspiration from its core values of Humility, Honesty, Innovation and Perseverance to ensure reaching out to its customers in a way that was both innovative in its experience as well as satisfying in terms of the value it offered to them.

Beginning of Digital Transformation at the J M BAXI GROUP

J M BAXI GROUP took a dual approach when it came to the digital transformation journey.

The primary aspect of the approach was to transform the way we did business. This was to be achieved by enhancing the penetration of technology in the way the business processes were conducted by the organization. This involves leapfrogging from the legacy systems that were used in the past to the latest and cutting-edge technologies that disrupt and deliver a step change in terms of effectiveness of the business processes and efficiencies in their delivery due to empowerment of the workforce.

The secondary aspect of the approach was an innovative and new approach to look at the information in terms of data as well as experience in terms of domain knowledge that we had at our disposal which would spawn out new software solutions. These solutions would be initially dogfooded by our own organizations, until we consider them to market as Software as a Service (SaaS) solutions catering to the entire industry in general.

Spawning of Platforms and Services

From the time we started this journey in December 2015 till the present date, the 'DigiSquad' initiative has given rise to the following platforms which are either completed or at the stage of deployment:

- 'Portall 2.0' platform for enabling integration of multiple systems of ports, CFS and ICD's through a common integration layer thereby allowing their customers to interact with them real-time.
- India's 'Port Community System' platform which is what we have built for the Indian Ports Association in order to enable the entire Marine Logistics community to interact and collaborate through a single common platform.
- 'Vridhi Lending' platform for enabling the extension of credit from the distributors to the retailer. It also extends to the retailer over a mobile-interface for choosing the options of credit and the interest associated with it.
- 'Diabos 3.0' platform for enabling Global Voyage Management transactions enabled with state-of-the-art technologies in the field of Analytics, Artificial Intelligence, Machine Learning, Robotic Process Automation and Cognitive.
- 'Portall Clear' platform for enabling Landside Cargo Clearance solutions.

Segregation of Innovation Engine and the Final Products

As we go ahead with the progress in our digital transformation journey, the management felt a need for a clear segregation of the Innovation Engine from the Final products to the market.

This was the initiation of the thought for the evolution of 'Arya Infosystems' to don the role of the innovation engine for the J M BAXI GROUP while companies like Portall Infosystems, Diabos and JMB Incubators will own the responsibility to launch the products to the market.

Arya Infosystems was conceptualized for developing into an organization for owning the following roles:

A. Shared Services Arm of J M BAXI GROUP.

B. DevOps Solution provider to the Platform solutions being created by market facing organizations like Portall Infosystems, Diabos, JMB Incubators.

C. Integrated Infotech Solutions provider for the Logistics industry as the primary target and the other industries in general for Industry agnostic technologies.

Road Ahead

Arya Infosystems has begun the journey by undertaking multiple projects for J M BAXI GROUP and solutions for in Office Automation, Digitization in continuation with its delivery of the Platforms for projects like Port Community Systems of India, Portall Clear and Vridhi Lending platform ■

In Focus

Coastal Movement Of Fertilizers

Fertilizers are the backbones for agricultural productivity. The demand for fertilizer has grown along with the demand for food. In the last five years, the consumption of fertilizers has increased by around 2.5 per cent and is expected to rise to approximately 4 per cent in the future. Growing agricultural produce with an increase in the overall sown area will prompt greater demand for fertilizer end products-around 70 MMTPA by 2020 and around 120 MMTPA by 2035.

The commodity contributes about 2 per cent of the total cargo handled at Indian Ports. Currently, India imports 28 MMT of finished fertilizers and raw materials with Andhra Pradesh, Gujarat and Odisha being the biggest clusters. Kakinada, Mundra and Kandla continue to be the largest finished-fertilizer importing ports, while Paradip, Kandla and Vishakhapatnam are the largest fertilizer raw material importing ports. It is estimated that the volume of imports of fertilizer raw materials and finished products will grow at around 4 per cent, keeping the volumes handled at Indian ports fairly stable until 2020.

Price Control Mechanism

Fertilizers declared under the essential commodity act have been regulated by the Department of Fertilizers through Fertilizer Control Act. The act aims at making fertilizers available to all the farmers by controlling the prices and distribution to all states.

Urea is the most consumed fertilizer hence is closely regulated and directly subsidized. Maximum retail prices of Urea is fixed by the Department of Fertilizers, whereas prices of DAP, MOP and other complex fertilizers is derived from the demand and supply.

Movement Control Mechanism

Fertilizer availability to the farmers is monitored using a Fertilizer Monitoring System based on which the demand is estimated and met through domestic production and imports. Movement of Urea is fully regulated whereas movement of DAP, MOP and other complex fertilizers are partially controlled. The manufacturer/supplier is reimbursed for the movement cost over and above the production cost subsidy based on the policy of Nutrient Based Subsidy (NBS).

Currently, rail is preferred as the primary mode of transport for long-distance fertilizer movement. The freight for direct rail movement from plant or port (primary movement) is subject to lower of actual claim and equivalent rail freight up to a maximum distance of 1400 Kms. The freight for direct road movement from plant or port (primary movement) is subject to lower of actual claim and equivalent freight up to a maximum distance of 500 Kms.

However, the secondary freight is paid only in-line with the maximum road movement limit as per the Uniform Freight Subsidy.

Coastal Shipping – Fertilizer Movement

Coastal shipping and inland waterways currently form around 7 per cent of the total modal mix in India, compared to around 10–20 per cent for other emerging countries like China. To promote transportation of fertilizers through coastal shipping under the Ministry of Shipping's flagship programme 'Sagarmala', the freight subsidy, which was earlier only applicable to the movement of fertilizer by rail from the plant or port to various rake points in various districts, will now also apply to the primary movement of

In Focus

fertilizers through coastal shipping and inland waterways but at the lower of the equivalent railway rates or actual freight paid.

The study conducted as part of the Sagarmala programme identified that the total opportunity for coastal movement of fertilisers is 6-7 MTPA by 2025, with an estimated savings of around 900 Crore to 1,000 Crore per annum.

Coastal fertilizer plants in Andhra Pradesh, Gujarat and Odisha have the potential to ship their products to the peninsular states via coastal routes. If the key rail movements are considered from the major fertilizer plants to the top-200 fertilizer-consuming districts in the country, around 7 plants have the highest potential to shift to coastal shipping.

Cabotage Relaxation - Coastal Shipping

In a move aimed at further removing the bottlenecks at transporting fertilisers, the government has done away with the licensing permits for foreign vessels to transport fertilizers. As per the earlier regulatory framework, a foreign ship can load cargo from one port in India and discharge at any other port in the country only under a licence issued by the Director General of Shipping.

Now, a foreign vessel is not required to obtain a licence from the Director General of Shipping for engaging in the carriage of fertilizers via sea route. The relaxation is subject to conditions like the quantity of fertilisers should contribute to at least 50 per cent of the total cargo onboard the ship.

Movement Types - Coastal Shipping

Break-Bulk

The bagged cargo is pre-slung at load port and is loaded directly into the vessel holds and transported via coastal route to various disport locations using Mini-Bulk Carriers (MBCs) or covered sea barges. At disport location the pre-slung cargo inside the hold is directly hooked onto the cranes and offloaded at the wharf as against the usage of net slings, thus avoiding the additional cost and time using more labour.

Current Plant Wise Potential Volume For Coastal Fertilizer Movement		
Plant	Location	Potential Volume (MMTPA)
Coromandel	Vizag	1.00
IFFCO	Kandla	0.40
GSFCL	Sikka	0.40
IFFCO	Kalol	0.20
SPIC	Tuticorin	0.40
RCFL	Mumbai	0.35
IFFCO	Paradip	0.30

Containers

Containerization of bagged cargo is also very attractive for coastal movement as it ensures movement of cargo in a much safer way by reducing multiple handling of bags in the whole operation as against break-bulk. The handling losses are very negligible and ensure the quality of the final product delivered.

Also, with the relaxation of the cabotage law foreign vessels will now be able to carry boxes to various domestic ports by providing competitive rates on ocean freight thus bringing down the overall logistics expenditure.

Benefits - Shifting to Coastal Shipping

- Decongesting the already overburdened rail and road network
- Timely clearance of cargo from the ports without relying on rake availability
- Less carbon footprint by reducing the greenhouse emissions on per tonne-km of transportation for longer distances
- Helps in significantly cutting down the per tonne-km cost for transporting fertilizer at longer distances

Way Forward - Growth of Coastal Shipping

- Creating dedicated coastal berths and infrastructure facilities at the relevant ports
- Dedicated container liner services and CFS to be established at the important ports along the coastal route identified for fertilizer traffic
- Setting up storage capacities at origin-destination ports for safe receipt and storage
- Ensuring two-way cargo movement, which has the potential of reducing the cost of coastal transport, hence improving cargo volumes and facilitating investment in fleets
- Availability of adequate number of small-sized, good condition, river-seaworthy vessels
- Reliability of service, frequency and a comprehensive multimodal logistics solution will ensure the shift from the conventional modes of transport to coastal shipping ■

Port Statistics

SHIPPING & CARGO PERFORMANCE

QUARTERLY UPDATES ON INDIAN MAJOR & MINOR PORTS (QTY IN MILLION TONNES)
JULY - SEPTEMBER 2018 (IInd QUARTER) 2018 - 2019 / JULY - SEPTEMBER 2017 (IInd QUARTER) 2017 - 2018 (QTY IN MT)

AGRICULTURAL PRODUCTS

	SUGAR		SOYAMEAL		WHEAT		RICE		MAIZE	
	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17
No. of Ships called	15	31	5	3	0	9	26	0	1	0
Total Cargo Handled	0.617	1.058	0.159	0.058	0.000	0.433	0.455	0.000	0.020	0.000
Import	0.476	0.790	0.000	0.000	0.000	0.433	0.000	0.000	0.000	0.000
Export	0.141	0.268	0.159	0.058	0.000	0.000	0.455	0.000	0.020	0.000

FINISHED FERTILIZERS & FERTILIZER RAW MATERIALS

	UREA		SULPHUR		ROCK PHOSPHATE		DAP		MOP	
	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17
No. of Ships called	33	39	17	29	49	48	44	37	19	32
Total Cargo Handled	1.403	1.775	0.463	0.516	1.905	1.800	2.037	1.592	0.550	0.915
Import	1.403	1.775	0.303	0.359	1.905	1.800	2.012	1.582	0.550	0.915
Export	0.000	0.000	0.160	0.157	0.000	0.000	0.025	0.010	0.000	0.000

COAL

	THERMAL COAL		COKING COAL		MET COKE		PET COKE		ANTHRACITE COAL	
	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17
No. of Ships called	237	160	237	211	26	45	29	32	12	10
Total Cargo Handled	13.418	10.574	11.002	11.872	0.750	1.094	1.250	2.487	0.348	0.273
Import	5.998	4.743	10.821	11.872	0.718	1.094	1.016	2.178	0.348	0.273
Export	7.420	5.831	0.181	0.000	0.032	0.020	0.234	0.309	0.000	0.000

STEEL & RELATED ORES

	STEEL PRODUCTS		SCRAP METAL		CHROME		MAGNESIUM ORE		IRON ORE	
	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17
No. of Ships called	321	346	4	6	1	1	32	43	224	250
Total Cargo Handled	7.824	4.667	0.102	0.182	0.006	0.010	0.632	0.879	13.491	12.171
Import	6.252	2.407	0.102	0.182	0.000	0.000	0.632	0.879	7.240	4.505
Export	1.572	2.260	0.000	0.000	0.006	0.010	0.000	0.000	6.251	7.666

INDIAN PORT PERFORMANCE - Q2 & FY 2018 - 19 THROUGHPUT (QTY IN METRIC TONNES)

JULY - SEPTEMBER 2018 (IInd QUARTER) 2018 - 2019 / JULY - SEPTEMBER 2017 (IInd QUARTER) 2017 - 2018 (QTY IN MT)

Ports	Types of Ports	NO. OF SHIPS		LIQUID CARGO		BULK CARGO		CONTAINERS (TEUS)		TOTAL CARGO *	
		IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17	IInd Qtr'18	IInd Qtr'17
Kandla	■	846	488	2.673	2.363	7.584	2.921	48,725	17,334	10.257	5.284
Mumbai	■	468	582	7.437	7.546	1.177	2.330	-	13,365	8.614	9.876
Nhava Sheva	■	171	280	1.780	1.913	2.794	0.180	127,7523	1,293,572	4.574	2.093
Mormugao	■	139	165	0.276	0.312	3.411	4.229	-	-	3.687	4.541
Mangalore	■	324	445	6.921	6.476	2.507	3.227	-	28,382	9.428	9.703
Cochin	■	145	158	5.649	5.003	0.294	0.307	139,608	133,067	5.943	5.310
Tuticorin	■	169	261	0.463	1.200	3.665	4.098	189,027	172,969	4.128	5.298
Chennai	■	239	1024	0.422	4.985	1.691	1.987	-	409,342	2.113	6.972
Ennore	■	213	254	4.941	1.251	5.972	4.492	-	-	10.913	5.743
Vishakhapatnam	■	313	312	3.941	3.235	6.824	6.623	115,244	89,523	10.765	9.858
Paradip	■	484	551	11.269	11.442	17.310	15.900	-	-	28.579	27.342
Haldia	■	508	612	3.498	4.235	5.705	5.522	45,766	36,930	9.203	9.757
Kolkata	■	73	58	0.023	0.220	0.025	0.001	169,305	161,164	0.048	0.221
Gangavaram	■	28	6	-	-	1.747	0.154	-		1.747	0.154
Pipavav	■	95	159	0.092	0.498	1.472	1.607	237,875	171,903	1.564	2.105
Mundra	■	651	684	7.063	5.468	13.335	10.420	1,109,374	1,042,684	20.398	15.888
Dahej	■	199	212	6.312	6.066	2.886	2.343	-	-	9.198	8.409
Hazira	■	160	209	0.905	1.492	2.380	1.741	148,947	114,625	3.285	3.233
Navlakhi	■	46	27	-	-	3.015	1.623	-	-	3.015	1.623
Kakinada	■	206	247	0.792	0.981	2.893	3.179	8208	-	3.685	4.160
Total Vessel Calls at all ports		**5477**	**6734**	**64.457**	**64.686**	**86.687**	**72.884**	**2,212,079**	**3,684,860**	**151.144**	**137.57**

■ Major Port ■ Non-Major Port

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

J M BAXI GROUP
www.jmbaxigroup.com

J. M. BAXI & Co.	ULSSLLP	ARYA OFFSHORE	ICT	VCT
www.jmbaxi.com	www.unitedliners.com	www.aryaoffshore.com	www.ict.in	www.vctpl.com

BOXCO LOGISTICS	DIABOS	PORTALL	ARYA COMM	ARYA WATER
www.boxcologistics.com	www.diabos.biz	www.portall.in	www.aryacom.com	www.aryawater.com