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## The Curious Case of Cashew



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Demand for coal is increasing rapidly, but the corresponding improvement in transport infrastructure to facilitate quick movement of the fuel to consumption points is yet to catch up



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## OPENING REMARKS

# Shipping sector left high and dry



In the run up to the recently announced annual budget, there was much hullabaloo over the expected changes in the archaic laws that govern the shipping industry and reforms that could help this industry catch up with its peers in telecom and retail that are racing ahead.

But much to the sector's disappointment, the announcements were nothing but old wine in a new bottle. The proposal of converting the major ports to corporate entities that has been doing the rounds for the last ten years was made again, followed by another insipid law allowing tax relief for Indian sailors. The only port that walked away happily was Tuticorin with a hefty grant to develop its outer harbour, saving some staid announcements were made to develop special economic zones at Kandla and JNPT.

What the industry was looking forward to was not much, but some meaningful announcements that could help the stakeholders and the country. Amendments to the tonnage tax and related acts that weigh on the sector, a dedicated fund for shipbuilders and a logistics policy were the essential trinity that all players expected. Leaf through the pages of the magazine and you will find all the provisions related to tonnage tax awaiting immediate revision. The budget also fails to address the long term domestic debt market for acquiring coastal vessels.

I don't mean to fill this page with sob stories, but the industry has been left high and dry yet another time and we are left to pick up the threads and move on trying to keep our heads bobbing above water. If 'Make in India' has to mean more than a slogan, the Centre must introduce policies to help this industry to perform well.

The Ministry recently set up a committee to improve use of technology in the ports and transport sector. While this move is imperative to achieve efficiency, crucial acts such as the one on Land Acquisition must be passed

after addressing all concerns as it holds a key to pushing rural infrastructure and improving connectivity. This bill could be a major driver for better performance of the sectors such as shipping that are dependent on better transportation networks.

**If Make in India has to mean more than a slogan, the Centre must introduce policies to help this industry to perform well.**

I would like to end on a note of optimism hoping the sector will not have to wait another whole year for better reforms. With five years left for realising the goals set out in the Maritime Agenda, the centre must facilitate the plausibility of a few atleast.



#### Ramprasad

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COVER STORY **p.22**

## COAL LOGISTICS: BECOMING CORE FOCUS

Demand for coal is increasing rapidly, but the corresponding improvement in transport infrastructure to facilitate quick movement of the fuel to consumption points is yet to catch up

### COASTAL SHIPPING

**New thrust with renewed interest** .....28

A range of initiatives including priority berthing, incentives and funding supported by favourable legislative framework are giving a boost to coastal shipping



### RAILWAYS PRIVATE INVESTMENT

**Changing tracks** .....32

Observing the deficiencies in the 'Own your wagon scheme' and its inability to attracting private investment, the railway ministry metamorphosed it into 'the wagon investment scheme'



### TAX REFORM

**Making Indian flag globally competitive** .....34

The taxation policy in the Indian shipping sector makes national flags non-competitive globally. Leading Maritime Lawyer, Shardul Thacker proposes corrective measures to rationalise the tax regime

### CASHEW TRADE

**The curious case of cashew** .....38

The changing dynamics of cashew nut industry in India in the last few years makes the industry very unpredictable. While the production remained stagnant over the years, dependency on imports has grown tremendously to support the domestic consumption, which is growing at a 15 per cent year-on-year. On the domestic front, the earlier production and processing dominated areas like Kollam in Kerala are making way for the new emerging markets like Delhi, Andhra Pradesh and Gujarat.

### INTERVIEWS

**Changing dynamics in the Indian cashew market** ..... 42

**Bola Rahul Kamath**  
President of Karnataka Cashew Manufacturers Association



**"India first" should be the mantra!** ..... 50

**Antony Prince**  
President,  
GTR Campbell Marine Consultants Ltd



**Incessant innovation meets evolving market needs** ..... 54

**Gianluca Marucci**  
Global Technical Services Director, Castro



### KOLKATA PORT

**Performance marred by inefficiencies** ... 46

The Kolkata Port authorities can no longer be indifferent to the dredging problem and infrastructural deficiencies of the port if they want the port volumes to grow

### INSURANCE

**Mega Ships Mega Risks** ..... 48

The big container ships that ply the world's trade routes are growing ever larger, holding down the cost of ocean shipping, but also raising concerns among vessel operators, insurers and regulators about the potential for catastrophic accidents

### TECHNOLOGY – COLD CHAIN

**Phase Change Materials – Innovation for reefer trucks** ..... 52

Phase change materials have emerged as a cost-effective and eco-friendly temperature controlling solution for cold chain operators, drastically reducing their operational and maintenance costs

### OIL STORAGE

**Oil price volatility risks and opportunities in 2015** ..... 56

VLCCs are increasingly being chartered for use as floating storage units to store crude oil, but concerns remain regarding the obligations, liabilities and risks to be borne by both the charterer and owner of the tanker.

### IRON ORE

**China's imports – Never more important to shipping?** ..... 58

Chinese iron ore imports surged dramatically last year. But with construction and infrastructure programmes which drove the steel industry over the last decade facing serious problems, the sustainability of these imports is a cause of concern for the dry bulk market

### SHIPPING LANES ARCTIC

**The Northern sea route – A distant dream?** ..... 60

While Russia has pinned huge hopes on the Northern Sea Route, it may take decades before it even begins to complement existing trade routes, let alone rival them

### EUROPE

**HAROPA bridging Indo-European trade** ..... 62

Connecting to all major ports in India and being 30 per cent cheaper than any other port in Europe, HAROPA offers a complete logistics solution bringing India closer to the European markets

### OTHERS

News in Brief ..... 06

Numbers ..... 08

News ..... 10



### The world's biggest cargo carrier

The latest ship to take the title of "world's biggest cargo carrier" is 'MSC OSCAR' that has docked in the UK. It is 395.4 metre (1,297ft) long – a few metres greater than the height of New York's Empire State building, and about 200 metre longer than some of the other big ships.

It has the capacity to hold 19,224 standard 20ft-long containers. Built by Daewoo in South Korea at a cost of \$140 million (£93 million), the ship is named after the eight-year-old son of Mediterranean Shipping Company president and chief executive Diego Aponte.

### Bulk shipping rates dip further

Global non-oil trade volumes shrank further, plunging the shipping markets deeper into gloom in the last few weeks. The Baltic Dry Index sank to just above 500 levels, the lowest in about the 30-year old history of the index. "The dry bulk market is in shambles. I do not think there will be any meaningful recovery before two years," revealed AK Gupta, CMD, Shipping Corporation of India, to *Business Line*.

The situation has worsened as too many ships are chasing the shrinking volumes. At current levels, dry bulk vessels are struggling to get daily hire charges of between \$4,000 and \$5,000 a day, which is barely sufficient to break even on a voyage.

### Transport Corporation of India adds coastal cargo service on the west coast

Transport Corporation of India Ltd (TCI) launched its cargo container shipping service from Mundra Port, Gujarat to Kochi, Kerala. The new acquisition called *MV TCI Arjun* will mark the beginning of coastal shipping services by TCI in the western coast. The ship will transport tiles, marble, sanitary wares, agro products, machineries, electronic & engineering and consumer products from Rajasthan, Punjab, NCR and Gujarat production areas for consumption in south. The vessel has a dwt of 10,600 mt and can carry about 300 loaded containers.

### Eight new routes to promote cross-border trade

The NDA government is planning to open at least eight new routes for cross-border trade between the two countries in J&K. Presently, there are two routes – Uri-Salamabad and Poonch-Rawalkote – that are used for trade purpose across the Line of Control. Among the routes that the government is contemplating to make operational is also the Kargil-Skardu route that forms an integral part of the ancient Silk Route which connected Asia, Europe and Africa.

The eight trade routes that have been suggested by the government are Jhangani-Mirpur, Mendhar-Kotli, Jammu-Sialkot, Skardu-Kargil, Turtuk-Khapulu, Chamb-Nonian to Mirpur (across Munawar-Tawi), Gurez-Astoor and Gilgit Titwal-Chilham (across Neelam Valley). These routes have been shortlisted after considering longstanding demands of the local population in J&K.

### Shantha Martin presented 'Business Leader Award'

Shantha Martin, CEO – ISC, Middle East, Africa (S & E), Allcargo Logistics Ltd, has been awarded the 'Business Leader Award' at the annual World Women Leadership Congress & Awards, 2015 (WWLCA).

The WWLCA is co-partnered by CMO Asia, which is a global community of strategic leaders in

Asia and World Federation of Marketing Professionals. The awards were announced in the presence of various senior professionals across sectors. Shantha Martin was felicitated in recognition of her leadership and expertise in the field of logistics, as well as the distinct innovations and initiatives brought in the field.



## Krishnapatnam Port wins CII EHS Excellence Award



Krishnapatnam Port bagged the Environment, Health and Safety Award at the 8th EHS Excellence Award Ceremony organised by the Confederation of Indian Industry – Southern Region in Chennai.

## Toyota Kirloskar Motor signs MoU with Kamarajar Port

Toyota Kirloskar Motor Pvt Ltd (TKM) signed an MoU with Kamarajar Port Ltd (KPL) in order to help facilitate the expansion of its export business. The MoU is a win-win for both as TKM will build a long-time relationship with the port, boosting its business and improving its commercial viability in a highly competitive market, and in return, TKM will benefit from the port related tariff concessions, giving a boost to its CBU for export to global markets. TKM has entered into a 10-year agreement with the port, renewable after every five years.

T S Jaishankar, Deputy Managing Director, Toyota Kirloskar Motor said, "This MoU reconciles our strategic business direction of making India a global supply base. We strongly believe that India not only has the potential of being a huge market for sales, it also has the potential of being a supply base. This is also in line with our commitment to partner PM's 'Make in India' campaign and we are proud to take a step in that direction and help foster India's economic growth."

## Chinese firms keen to manufacture in India

Chinese companies are keen to participate in the 'Make in India' campaign and establish manufacturing facilities here, revealed China's Ambassador Le Yucheng. As Chinese companies start producing in India, Chinese exports to India will decline and this will help to correct the imbalance in trade between the two nations. India's trade deficit with China rose to a whopping \$37.8 billion last year even as bilateral trade picked up, totalling \$70.59 billion, a year-on-year increase of 7.9 per cent. In 2013, the bilateral trade stood at \$65.57 billion, amid increasing Chinese exports to India.

## Narendra Modi invites GE to manufacture ships in India

Prime Minister Narendra Modi invited US-based General Electric (GE) to manufacture ships in India, during the inaugural ceremony of the first multimodal manufacturing facility of GE in India.

The MoU for the plant was signed with the Indian government in 2013. The unit will manufacture a range of diversified products for sectors like energy, aviation, oil and gas transportation. Stating that railways can become Indian economy's driving force, Modi added, "We want India's railway sector to develop, and become driving force of our economy."

## Toshiba Logistics starts operations in India

Toshiba Logistics India Private Limited (TLGI) has commenced operations in India. TLGI has scaled up its expertise and skills in forward logistics to facilitate Toshiba Group companies execute timely delivery of industrial large scale products to their customers in India. TLGI will provide end-to-end logistics capabilities starting from transportation engineering, packing/repacking, order processing, excise and customs compliance and clearance.

## Government to exempt vessel sharing pacts from CCI ambit

The government is likely to continue to exempt vessel sharing agreements among shipping companies from the purview of fair trade watchdog Competition Commission of India (CCI) after finding that such pacts are unlikely to hurt competition. The CCI and the Director General of Shipping have reviewed the situation during the last exemption period, and it was found that such pacts did not cause any appreciable adverse impact on competition. Hence, the exemption has been extended.

## India and Iran to boost bilateral trade

Aiming to boost export of Indian products to Iran, a joint working group of experts will be formed to facilitate bilateral trade. Iran's National Standard Organisation (NSO) along with the experts from the both the sides will examine the quality of the products exported. The group would evaluate the standard and look into issues over the import of rice, tea and soya into Iran.

## Dhamra Port pays ₹73.48 crore revenue share to Odisha Govt

Dhamra Port has paid ₹73.48 crore as its revenue contribution to Odisha Government. Director, Dhamra Port Company Ltd (DPCL), Santosh Kumar Mohapatra handed over a bank document of the revenue share contribution to Chief Minister Naveen Patnaik at the state secretariat. The revenue share covers the period since the commencement of operation of the port in May 2011 up to September 2014, DPCL sources said. The company was allowed a moratorium till March 2016, but has started paying its revenue share ahead of the expiry of this period. As per concession agreement, Dhamra Port had to pay a share of 5 per cent of its total revenue earning to the state government, which will become 8 per cent from the financial year 2016-17, and subsequently increase to 10 per cent and 12 per cent. Thus the share of state government from the port will further increase in coming years.

# VOICES



The industry awoke to harsh new realities: mismatch of mega vessels and ports, more complex

alliance arrangements, reduced shipping reliability, port congestion;

it was a challenging time for the industry in 2014. In fact, as more mega vessels enter service and the working of the mega alliances go into full swing in 2015, we may continue to see operational challenges this year. ■■

**Tan Chong Meng**  
Group CEO, PSA International



Exports play a key role in ensuring success of the 'Make in

India' initiative. Manufacturing in

India can be much more than what it is today, from the point of view of what it contributes towards the GDP. ■■

**Nirmala Sitharaman**  
Minister of State (Independent Charge)  
for Commerce & Industry



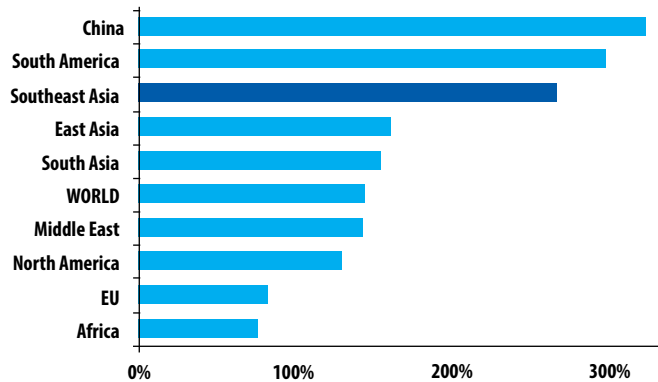
Instead of announcing incentives for several countries, the commerce ministry should focus only on three

countries - China and two oil/mineral rich African nations. Announce a big incentive package to focus only on these countries in the Foreign Trade Policy. ■■

**Rafeeqe Ahmed**  
President, Federation of Indian Export Organisations

## NUMBERS

### Growth in US Export Value FY 2004-2014



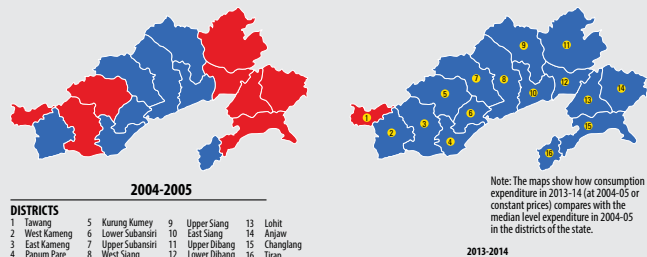
Source: FAS GATS

### THE NEW INDIAN CONSUMER ECONOMY ARUNACHAL PRADESH

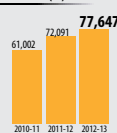


Arunachal Pradesh saw rural consumption expenditure grow faster than price levels in the nine years to 2013, although about one-half of its rural areas did not use electricity as the main source of lighting and 35% had no toilets. This is the 13th part of a series in which economics research firm Indicus Analytics and Mint map the trend of a fundamental shift in the consumer economy led by the rural population across districts.

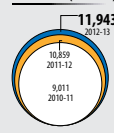
#### TOTAL EXPENDITURE IN RURAL ARUNACHAL PRADESH



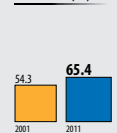
#### STATE PER CAPITA INCOME (₹)



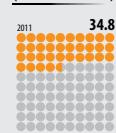
#### GROSS DOMESTIC PRODUCT (₹ crore)



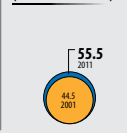
#### LITERACY (%)



#### OPEN DEFECTION (% of households)

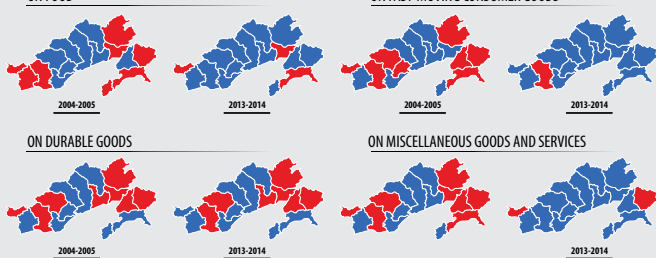


#### RURAL ELECTRICITY (% of households)



Source: Planning Commission, Census 2011

#### EXPENDITURE PER RURAL HOUSEHOLD PER MONTH



Source: Indicus Analytics





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## Railway budget gives a boost to logistics

The logistics sector is set to get a boost with the Railway Budget-2015 emphasising on augmenting freight handling capacity through a slew of measures. Increasing the speed in nine railway corridors will help reduce logistics lead time, which will ultimately benefit industry. "Announcements like Transport Development Corporation and multimodal depots are bound to improve the delivery capability. However, the budget has not addressed the main concern of 'logistics cost' that will continue to remain high," said S V Sukumar, Partner, KPMG in India.

Connectivity of airports with railways would give a boost to the perishable goods sector and this would encourage the use of multimodal transportation. The proposed investment plan (2015-19), which includes network expansion, national projects such as Northeastern connectivity, high speed rail, elevated corridor, station redevelopment and logistics park look promising.

## ClassNK retakes top position

ClassNK (Chairman and President: Noboru Ueda) recently announced its official registration figures in addition to Clarkson's data which reveals that it is once again the world's largest classification society.

The latest figures show that over 366 million deadweight tonnes are now registered with the leading classification society, some 21 per cent of the world's entire classed fleet, more than any other classification society in the world according to Clarkson's. Despite a global decline in new orders, the number of newbuildings joining ClassNK continues to grow, with the Society welcoming newbuildings totaling over 16 million gross tonnes to its register in 2014, or more than 25 per cent of all newly built tonnage last year.

## Cargo train service connects China with Europe



A cargo train service between China's famous commodity hub Yiwu and Madrid, Spain recently completed its maiden trip on the 13,000-km long route, one of the longest in the world, raising expectations of a surge in Chinese exports to the continent. The train carried 64 containers and travelled for 24 days along the Yixin'ou cargo line, the longest of all the China-European cargo railways, with famous Spanish products including

wine and olive oil. The new rail line is a more efficient export channel for Yiwu's commodities, as the city previously relied heavily on air and sea transportation. Yiwu, a sprawling trade city, is China's biggest commodity market nicknamed as world's wholesale market supplying all variety of products at cheapest prices. India is one of the top importers of Yiwu where over 3 lakh Indian traders visit annually.

## SIMA urges govt to make cotton coastal transport viable

The Southern Indian Mills Association (SIMA) has urged the Union Government to relax Cabotage rule and permit foreign flag vessels to transport cotton from ports in Gujarat to either Tuticorin or Cochin ports so that the freight charge could be decreased by 50 per cent of the existing cost.

According to SIMA, due to steep increase in lorry freight, transportation of cotton by road had become unviable. On the other hand, Indian shipping vessels charge ₹672 per bale for transporting cotton from Gujarat to Tamil Nadu which is higher than the fare of ₹433 per bale for transporting cotton from West Africa to Tamil Nadu.

To solve this issue, the director-general of shipping convened the first stakeholders meeting on December 11, 2014, wherein Indian National Shipowners' Association (INSA),

SIMA, CITI, TEXPROCIL, Cotton Association of India (CAI) and the Textile Commissioner participated. It was decided to have mutual discussions between SIMA and INSA to make domestic coastal shipping cost effective, as relaxation of Cabotage Rule would affect the Indian shipping industry. Further meetings between SIMA and INSA revealed that Indian shippers have to pay duty on bunkers consumed and other taxes which are not applicable on a foreign shipping company and other issues which were the root causes for higher rates charged by Indian shippers.

A joint memorandum was sent to the Ministry of Shipping and also to Ministry of Textiles in February seeking certain concessions and relaxations in the forthcoming budget for the Indian shippers so as to bring down the cost of cotton transport on par with foreign shippers.

## CEVA opens new South East Asia headquarters in Singapore



CEVA Logistics has opened the new headquarters for South East Asia, which is also its largest facility in Singapore, located in the West Hub. The facility occupies 48,000 sq m of warehouse and office space, with more than 300 personnel serving multi-sector customers at the facility. At the opening ceremony CEVA also announced the launch of its 'City of Energy' also located at the West Hub. The City of Energy is a fully dedicated hub for warehousing, cross docking, flow management and handling of oil and gas products and services for the energy sector.

The energy hub, covering a total warehouse space of 26,000 sq m and over 5,000 sq m open yard space for energy customers, is well located with easy access to Jurong Port and major highways. The City of Energy will serve CEVA's energy sector customers, many of whom use Singapore as a regional base for their oil and gas operations in Asia.

## Search-cum-selection committee to recruit chairman of Cochin Shipyard and SCI



The shipping ministry wants to recruit the next chairman of the Cochin Shipyard and the Shipping Corporation of India through the search-cum-selection committee. These posts would become vacant over the next nine months. The ministry is seeking the permission of the Appointments Committee of the Cabinet (ACC) to go through the committee route instead of the public enterprises selection board

(PESB). One of the reasons being cited by the ministry for the change in the process is the limitation under PESB for keeping the posts open only for government officials and that too for candidates up to a certain age. The search-cum-selection committee shall be chaired by the PESB chairman and consist of five members, including one outside expert of eminence.

## Bhiwandi to be made logistics and godown hub



Maharashtra Chief Minister Devendra Fadnavis has announced that the MMRDA has prepared a development plan to make the powerloom town of Bhiwandi in Thane district a logistics and godown hub. A piece of land with an area of 2,200 hectares has been earmarked for the

development plan, of which 400 to 500 hectares will be for the logistics and godown hub.

The existing godowns in the region will be regularised and the godowns which cannot be regularised after relaxing norms will have to be demolished.

## SCI reports ₹31.3 crore net profit in Q3



Shipping Corporation of India (SCI) swung to a ₹31.3 crore (about \$5 million) net profit in its fiscal third quarter, which ended December 31, from a \$10.6 million loss in the same period of 2013, driven by cost savings and higher freight rates that helped offset a marginal decline in revenue.

Quarterly revenue totaled \$181.3 million, down 3 per cent from \$187 million during October-December 2013. Third-quarter operating profit was \$7.6 million, a reversal from the \$8.3 million loss for the same quarter of fiscal year 2013-14.

Liner segment operating loss was cut from \$17.2 million in 2013-14's third quarter to \$1.9 million in 2014-15, which ends March 31. Revenue from liner operations, comprising primarily container activity, rose 18 per cent to \$37.4 million.

In the first three fiscal quarters, from April to December, the national carrier booked a net income of \$16 million, reversing a \$46.3 million loss in the same period of 2013, on a 3.5 per cent increase in revenue to \$521 million.

## Chennai Container Terminal CEO to head Ennore project



E. Annarasu, CEO and director, Chennai Container Terminal, run by DP World, will join the Adani Group and head the upcoming

container terminal project at Ennore. It has been reported that initially Annarasu would head this project and later would be moved to Mumbai to take up a larger role in the group's port projects across the country.

Adani Ports and SEZ Ltd had signed a MoU with Kamarajar Port Limited to set up a container terminal with ₹1,270 crore. It has floated an SPV Adani Ennore Container Terminal Pvt Ltd.

## Pipavav and L&T shortlisted for making submarines for Indian Navy



Larsen and Toubro and Pipavav Defence, have been shortlisted for the ₹60,000-crore potential contract to build six submarines for the Indian Navy. "Project 75i, as we call it, is

for purchasing six next-generation submarines with air independent propulsion (AIP) system for the Indian Navy over the next 7-8 years. It can fire both torpedoes and missiles," said a senior official in the defence ministry. "L&T and Pipavav have been shortlisted based on the recommendations from a high-level committee that had inspected the shipyards of several companies, both private and state-run, to zero in on the potential candidates," the official added.

The government had given its clearance three years ago for six submarines with AIP capability and subsequently decided last year to go for their construction on Indian yards as part of Prime Minister Narendra Modi's "Make in India" campaign. As against the initial import of two submarines, it was decided to make all the six submarines in India, as part of the effort to create defence infrastructure within the country while going for the best suitable collaboration with a foreign vendor under transfer of technology.

## Prakash Tulsiani, Managing Director, Gujarat Pipavav Ports steps down

Prakash Tulsiani, Managing Director and Director of Gujarat Pipavav Ports has stepped down and the resignation will take effect from May 31. During his tenure, the

port company successfully raised \$100 million through an initial public offer and got listed on the stock exchanges. Under his leadership, the port company turned around and became profitable in 2010 for the first time since its inception in 1998. Pipavav Port is part of an international network of 71 ports and terminals across 67 countries operated by APM Terminals BV.



## DB Schenker grows Asia-Pacific footprint

DB Schenker has strengthened its presence in Asia with the opening of a new company in Cambodia and a last-mile logistics centre in eastern India. DB Schenker Logistics Centre (SLC) has been established in Patna that offers logistics and warehousing solutions with last-mile delivery to companies involved in producing home appliances, electronics, computer peripherals and hi-tech segments.

"The new logistics centre enables us to serve the industries more effectively in Bihar, Jharkhand and neighbouring parts of West Bengal, as well as Uttar Pradesh, which are witnessing rapid economic growth," said Shrichand Chimnani, DB Schenker director logistics. Strategically located at 14 km from Patna Railway Station at Deedarganj on NH-30, and only 4 miles from Transport Nagar, the logistics centre features uninterrupted power back-up, and advanced transportation and IT systems.

## Clean energy initiative at major ports



The government will provide a financial grant of up to ₹25 crore to every major port for undertaking clean energy initiatives. Under the scheme, green projects such as wastewater treatment, renewable energy generation, use of bio-diesel and provision of shore power would be supported up to 50 per cent of the project cost. Nine major ports have also given a commitment to generate 150 MW of non-conventional energy through solar and wind power in the next five years. This includes 25 MW generation by Jawaharlal Nehru Port and 20 MW each by Paradip Port, Kamarajar Port and Kandla Port.

## Cochin Shipyard to build IHC-designed dredgers

Cochin Shipyard Limited has entered into a memorandum of understanding with IHC Holland for cooperation to construct cutter suction dredgers (CSDs) and trailing suction hopper dredgers. IHC was identified as a technology partner for Cochin Shipyard through an Expression of Interest process. Normally, dredgers are imported into India, but the new initiative will enable high-tech dredgers to be built in India. Cochin Shipyard already builds dredgers for the Inland Waterways Authority of India.

## 📌 Liverpool2 set to revolutionise logistics sector



The new Liverpool2 deep water container terminal will revolutionise the logistics market in the UK when it becomes operational later this year. Gary Hodgson, chief operating officer at Port of Liverpool owner Peel Ports, said that the company was in the process of building 700,000 sq ft of warehouse space at both ends of the Manchester ship canal. The port will have 900-metre new quay wall and 40 acres of land. It

will be one of the biggest facilities in terms of size and capability in Europe when it is completed.

Hodgson said, “We have planning consent for 1.6 million sq ft of warehousing in Salford and the first 300,000 sq ft is going to be built very soon. We are building 400,000 sq ft of new warehouse space at the Port of Liverpool.”

## 📌 Narendra Modi's Sri Lanka visit may restart ferry service to India

Prime Minister Narendra Modi's upcoming visit to Sri Lanka could breathe a new life into the over three-decade-old defunct ferry service between Rameshwaram in Tamil Nadu and Talaimannar in the island nation. India is keen to restart the service that was closed after the ethnic conflict escalated in Sri Lanka. Ircon International, the

infrastructure company under the railway ministry, will complete the construction work in Talaimannar required for vessels to dock. The shipping ministry is also trying to restart the Tuticorin and Colombo ferry service for strategic reasons. Lack of enough passengers had rendered the service unviable for the operators.

## 📌 Paradip Port to have a multipurpose berth

Paradip Port will soon have a clean cargo berth where containers and other clean bulk cargo can be handled. It will be a great boon to the rapidly expanding industry in the region to have such a facility close by. The multipurpose berth will be built through public-private partnership on Build, Operate and Transfer basis. After the competitive bidding process, United Liner Agencies of India Private Limited, which is part of the J M Baxi Group, was selected as the operator for this terminal.

The estimated cost of the project is ₹430.78 crore with a construction period of three years. Of this, an amount of ₹74.24 crore will be spent by Paradip Port Trust towards capital dredging. A draught of 17.1 metres will be made available at this berth where Capesize vessels of 125,000 DWT can be handled. The remaining cost of ₹356.54 crore will be borne by the BOT operator.

## 📌 ABG to focus on defence orders only

The debt-laden ABG Shipyard plans to focus on the more lucrative defence shipbuilding orders and exit from commercial shipbuilding business eventually. This is part of its plans to restructure operations, post entering corporate debt restructuring last year. ABG's executive director Dhananjay Datar said that ABG Shipyard would like to cash on orders from defence, which are expected to rise given the focus on 'Make in India', instead of concentrating on the commercial shipbuilding as the market is on the wane.

The company has close to 42 orders for commercial ships, of which most are in the oil and gas industry. The value of these orders stands at a staggering \$2.3 billion. However, with softening of demand in the global markets, the company saw a series of order cancellations leaving a huge inventory pile up. “We currently have only 30 per cent of the commercial shipbuilding orders alive, Datar said. However, 70 per cent, or \$1.6 billion worth of contracts, have been cancelled.

## 📌 Kolkata Port reports record cargo handling this fiscal

The city's dockyard under Kolkata Port Trust has revealed that it has handled a record cargo of 500,447 teu from April last year till March 10. KoPT, in a statement said it handled 256,679 teu of imports while exports accounted for 243,768 teu of cargo.

The port's chairman, R P S Kahlon said the port was able to achieve such cargo handling feats by adopting new technology in container handling by inducting four high capacity MHC (mobile harbour cranes) at three berths besides other advancements. He added, the Kolkata Dock System will be able to handle 520,000 teu by the end of March 2015.

## AMTOI Day 2015 celebrations



Ports, UK and Port of Antwerp were the special invitees on the occasion. Deepak Shetty, Director-General of Shipping, too graced the event, along with a plethora of ports, shipping and logistics industry stalwarts.

It was a night of turbans and other royal motifs as the Association of Multimodal Transport Operators of India (AMTOI) celebrated AMTOI Day 2015 on February 13. The theme this year was 'Royal India.'

The well-attended get-together saw the AMTOI Managing Committee, led by the President Sailesh Bhatia playing gracious hosts. Delegates from Peel

There was also a presentation by Gary Hodgson, Chief Executive Officer of Peel Ports, who elaborated on the advantages of the upcoming Liverpool2 Port in the north of UK, which he said is in the vicinity of a majority of the country's consumption and manufacturing regions.

A live band regaled the audience, and the event ended with a raffle draw with fabulous prizes.

## Private sector investment in railways

The railways ministry has received investment commitments to the tune of ₹10,000 crore from private sector companies for development of 19 projects under participative models of domestic and foreign direct investment.

Earlier, the ministry had issued sectoral guidelines for domestic and foreign direct investment which include suburban corridors through public private partnership, high-speed rail, dedicated freight lines, rolling stock including train sets and locomotive manufacturing facilities and railway electrification.

The government is undertaking a feasibility study for a diamond quadrilateral network of high-speed trains comprising four lines – Delhi-Mumbai, Mumbai-Chennai, Chennai-Kolkata, and Kolkata-Delhi and two diagonals Delhi-Chennai and Mumbai-Kolkata. The total length of the network will be 10,000 km. The Delhi-Chennai section has been identified for a feasibility study in cooperation with the Chinese government.

## Second smart city in Kochi

Another smart city is likely to come up in Kochi on Cochin Port Trust land in five years. In February, Union Ministry of Shipping had announced an ambitious plan to build one smart city each at the country's 12 major ports at an estimated total investment of ₹50,000 crore. Each of these green smart cities will be built at an expenditure of about ₹3,000 to ₹4,000 crore. The smart city will be a big boon to the port trust as it is facing severe financial crisis. The smart cities will have special economic zones, ship-breaking and shipbuilding centres besides allied things. The 12 major ports which have been identified for the smart city project are-Kandla, Mumbai, KEPT, Mormugao, New Mangalore, Cochin, Chennai, Ennore, V O Chidambarnar, Visakhapatnam, Paradip and Kolkata (including Haldia).

## Liebherr launches giant mobile harbour crane LHM 800

Liebherr Maritime Cranes introduces the new flagship mobile harbour crane to the market, the LHM 800. This new giant model is the mobile solution for ever growing vessel sizes and heavy industrial goods, taking container, bulk and general cargo handling to the next level. The new giant LHM provides a lifting capacity of 308 tonnes, exceeding the maximum capacity of the so far strongest mobile harbour crane, type

LHM 600, by not less than 100 tonnes. In addition to single lifts, it is also designed for tandem lifts. With Liebherr's tandem operation tool Sycratronic® activated, synchronised movement is guaranteed and one crane driver can simultaneously operate both cranes for improved speed, capacity and safety. In container handling configuration the fulcrum point is above 36 metres which eases the handling of bigger vessels.

## N Vaiyapuri is the new deputy chairman of Paradip Port Trust



N. Vaiyapuri has been appointed as deputy chairman of Paradip Port Trust. He was the Traffic Manager at Chennai Port. Having rich experience in port operations in a career spanning over three decades, he possesses practical knowledge in the traffic operations. He has introduced

RFID based Access Control System in Mormugao Port Trust in 2010 for the first time amongst the major ports. He is also responsible for introduction of Half Shift Gang System in Chennai Port Trust in 2013 which is also first of its kind amongst the major ports and this proactive action has not only improved ship day output but also reduced the handling cost. He holds an MBA and has graduated from Madras University in Mechanical Engineering.

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## India's steel imports from China nearly trebled during April-January



India's steel imports from China nearly trebled to over 29 lakh tonnes (LT) during the April-January period of this fiscal. The country had imported 10.88 LT steel comprising 6.46 LT carbon steel and 441.70 LT alloy/stainless variety during the entire 2013-14 fiscal. "Carbon steel imports during the period (April-January) from China stood at 15.27 LT while alloy/stainless steel imports were at 13.76 LT," said Minister of State for Steel and Mines Vishnu Deo Sai. In 2012-13, imports were higher at 16.88 LT compared to 15.03 LT a year earlier. Steel Authority of India has entered into an "associateship agreement" with State Trading Corporation of India (STC) for supply of one LT steel rails to STC for exporting to its potential customers in Persian Gulf, which may include Iran.

## PSA International reports increased throughput in 2014

PSA International posted 65.44 million teu in 2014, representing an increase of 5.8 per cent from the previous year. PSA's flagship Singapore Terminals contributed 33.55 million teu with a growth of 4.1 per cent year-on-year, and PSA terminals outside Singapore delivered a total throughput of 31.89 million teu, increasing 7.8 per cent over 2013. PSA Group revenue was higher by 2.9 per cent in 2014 at \$3,830 million, compared to \$3,723 million recorded in 2013. Profit from operations declined 1.1 per cent due to higher operating cash costs and depreciation. It was \$1,884 million in 2014, compared to \$1,904 in 2013. Overall net profit for the year was 1.7 per cent lower at \$1.40 billion. PSA's balance sheet remains strong with a gross debt equity ratio of 0.44 times at the close of 2014.

## Expansion work begins at JNPT container terminal

Singapore-based PSA International has started work on its \$350-million expansion project at Jawaharlal Nehru Port Trust. PSA won the bid to construct and manage a \$1.3-billion fourth container terminal at JNPT, beating off competition from Adani Ports & Special Economic Zone.

The new terminal will be known as Bharat Mumbai Container Terminals (BMCT). It will be designed to handle super post-Panamax vessels and when fully completed will have a quay length of 2,000 m, with the deepest berths in JNPT. It will also be equipped with the latest technology and equipment to offer customers fast turnaround times. Phase 1 of BMCT is expected to begin operations in early 2018.

## Kochi Port records marginal increase in cargo movement

Cargo movement through Kochi Port has increased 3.14 per cent between April 2014 and January 2015 when compared with the first 10 months of the last financial year. According to tentative figures from the Indian Ports Association, the port handled 18.02 million tonnes of cargo, including containerised cargo, during the current financial year up to January. During the same period last financial year, the port handled 17.47 million tonnes.

For the whole of last financial year, Kochi handled a total of 20.89 million tonnes of cargo, including containerised cargo.

Containerised cargo throughput last financial year stood at 3,46,204 teu. Container movement through the Kochi port increased to 3,10,000 teu during the first 10 months of the current financial year. The throughput was 2,91,000 teu during the same period last year.

## Suresh P Shirwadkar elected Deputy Chairman at NMPT

Suresh P Shirwadkar has been appointed as the Deputy Chairman of New Mangalore Port Trust (NMPT) by the Ministry of Shipping. He was working as Chief Manager (Finance) in Jawaharlal Nehru Port Trust prior to this assignment. A graduate from St. Aloysius College, Mangaluru, he is an associate member of Institute of Chartered Accountants of India. A native of Ankola in Uttara Kannada district, Shirwadkar joined the Shipping Ministry as an accounts officer in 1992 and had worked as financial advisor and chief accounts officer in Mormugao Port Trust, Goa, for eight years.





## Railway ministry approves high speed dedicated freight corridors



The Ministry of Railways has sanctioned implementation of Eastern Dedicated Freight Corridor (EDFC) and Western Dedicated Freight Corridor (WDFC) with freight train speeds of maximum 100 kmph. Alignment for both the corridors has been finalised.

The WDFC starts from Jawaharlal Nehru Port Trust, Mumbai and passes through Maharashtra, Gujarat, Rajasthan, Haryana, and terminates at Dadri in Uttar Pradesh. The total length of the Western DFC is about 1,500 km.

The Eastern Freight Corridor, starts from Sahnewal near Ludhiana in Punjab and passes through Haryana, Uttar Pradesh, Bihar, Jharkhand and terminates at Dankuni in West Bengal, total length being 1,856 km.

In addition to these corridors, preliminary engineering cum traffic surveys have been taken up for the following DFCs:

East-West Corridor (Kolkata-Mumbai) – It will traverse through West Bengal, Jharkhand, Odisha, Chhattisgarh and Maharashtra.

North-South Corridor (Delhi-Chennai) – It will traverse through Haryana, Uttar Pradesh, Rajasthan, Madhya Pradesh, Maharashtra, Andhra Pradesh and Tamil Nadu.

East Coast Corridor (Kharagpur-Vijaywada) – It will traverse through West Bengal, Odisha and Andhra Pradesh

Southern Corridor (Chennai-Goa) – It will traverse through Tamil Nadu, Andhra Pradesh, Karnataka and Goa.

## Malaysian Flag approves IRClass as recognised security organisation



The Maritime Administration of Malaysia has authorised IRClass to act as a 'Recognised Security Organisation' (RSO) towards verification and approval of ship security plans and issuance/endorsement of International Ship Security Certificates (ISPS) for ships operating under Malaysian Flag Administration.

The latest recognition will now allow IRClass to provide complete statutory certification to Malaysian registered ships, thus improving its services to the Malaysian shipowners. Malaysia is one of the key flag administrations in the South East Asian region. Besides Malaysia, IRClass is a recognised security organisation for 25 other Flag Administrations across the world, which together account for approximately 50 per cent of total international tonnage. This includes the Indian and Sri Lankan flags for which IRClass is the RSO for port facilities as well.

## Hamburg Sud expects shipping volumes to increase in 2015



Hamburg-Süd expects shipping volumes to increase by a fifth this year, after a 2.5 per cent increase in 2014. Sales may rebound after sliding to €5.1 billion (\$5.53 billion) last year on lower prices and currency effects from €5.2 billion in 2013, the CEO, Ottmar Gast said. The company recently purchased the container line business of Chilean shipping group CCNI. As reported by IHS Maritime, assets included in the deal: Hamburg Süd will take over 750 employees from CCNI and Agunsa across South and Central America, Europe and Asia; 15 period charter contracts for vessels with intakes of 1,000-9,000 teu, and 60,000 container boxes. The container line business generated \$750 million in revenues last year.

## OVL to acquire stake in two Siberian oilfields



ONGC Videsh Ltd is in talks to acquire stake in two Siberian oilfields – Vankor and Yurubcheno-Tokhomskoye fields. Discussions are at a preliminary stage, revealed Oil Minister Dharmendra Pradhan. It has been reported that an agreement for the stake was to be signed during the visit of Russian President Vladimir Putin in December last year but differences between the two sides prevented formal signing of the pact. Russia's biggest oil company Rosneft had offered to sell 10 per cent stake in the strategic Vankor oilfield in Siberia to OVL.

OVL is interested in expanding its presence in Russia as it looks to source



one million barrels per day of oil and oil-equivalent gas from Russia. It already has 20 per cent stake in Sakhalin-1 oil and gas field in Far East Russia and in 2009 acquired Imperial Energy, which has fields in Siberia, for \$2.1 billion.

## Basmati rice exports to Iran may resume soon



After several rounds of discussions, Iran is likely to restart issuing permits to Indian exporters, paving the way for basmati exports to resume. Exports are expected to start early next year, said Ajay Sahai, Director General of the Federation of Indian Export Organisations.

India's overall basmati rice exports declined by over 6 per cent at 2.57 million tonnes during April and December 2014 as compared to 2.74 million tonnes reported in the corresponding period last year. In value terms,

overall basmati rice exports declined by 2.64 per cent to \$3373.23 million in the first nine months of the current financial year as compared to \$3465 million in the same period last year. But average per tonne realisation increased to ₹80,000 this year as compared to ₹75,000 during the previous year.

## India will safeguard its oil interests in Iran against sanctions

Petroleum Minister Dharmendra Pradhan has pledged New Delhi's support for protecting the interests of Indian oil companies in Iran in the face of US sanctions for investing in Iran. Pradhan made the comments after the US Government Accountability Office (GAO) named Oil and Natural Gas Corp, Indian Oil Corp and Oil India Ltd along with two Chinese firms for having energy ties with Iran, an act for which it can impose sanctions against them. The three Indian companies have been targeted for their stake in the Farsi offshore block in Iran. OVL, IOC and OIL have explored for oil and gas in Iran's Farsi block and proposed investing \$5.5 billion to produce gas from the 21.68 trillion cubic foot discovery they made in the offshore area located near the Saudi Arabian border.

## Documents required for import/export reduced to three each

The Department of Commerce had set up an Inter-Ministerial Committee under the Chairmanship of Directorate General of Foreign Trade (DGFT) in July 2014 to study and recommend ways to reduce the number of mandatory documents required for export and import. The Government of India has reduced the mandatory documents required for import and export of goods to three document each.

India ranked 126th in "Trading Across Borders" component of "Ease of Doing Business," out of 189 countries ranked by the World Bank, in its 2015 Report.

## Maersk to retrofit containerships with Danelec Marine VDRs

Maersk Line is retrofitting 100 vessels with the next-generation Danelec DM100 Voyage Data Recorders (VDRs) and Simplified Voyage Data Recorders (S-VDRs). Installations are expected to be complete in 2016 and will help Maersk to meet the new IMO standards.

The Danelec DM100 VDR and S-VDR incorporate Danelec's revolutionary SoftWare Advanced Protection (SWAP) technology, which facilitates fast and easy shipboard service, and VDRConnect, which provides selective remote download of VDR datasets at shore offices.

## BHEL plans to foray into ship building



BHEL has recently formed a consortium with two other state-owned companies, Mishra Dhatu Nigam and Hindustan Shipyard, to build submarines indigenously. The consortium plans to jointly bid for the proposed P-75 (I) project of the Indian Navy, under which six submarines will be built at an Indian shipyard at a total cost of ₹51,000 crore. Tenders for the project are expected to be called by the year end. At present, six Scorpene submarines are being built at the state-owned Mazagon Docks in collaboration with DCNS of France. The new submarines will have air-independent propulsion (AIP) to enable sustenance under water for longer duration. In addition, there will be advanced detection range and combat management system besides better sensors for optimum performance.

## Shipping Corp to buy five ships from Cochin Shipyard

Shipping Corporation of India Ltd (SCI) looks to re-start ship purchases that were frozen after poor financial performance. SCI will buy five vessels from Cochin Shipyard Ltd, and will issue tenders for buying two used liquefied petroleum gas (LPG) carriers. The five ships include three anchor handling tug-cum-supply vessels and two platform supply vessels used to support offshore oil exploration activities. SCI had reported overall losses in the fiscal years 2012, 2013 and 2014 – ₹428.2 crore, ₹114.3 crore and ₹274.66 crore, respectively. With three consecutive quarters of profits this fiscal, SCI has earned a cumulative profit of ₹99.44 crore in the nine months and is only a quarter away from posting a full-year profit, its first in four years.

**Gateway SpotLight**, a special feature by *Maritime Gateway*, showcases the unique initiatives of business groups across maritime sectors in their products, services and processes that helps them achieve and sustain better productivity, efficiency, environment conservation and above all judicious business practices. **Gateway SpotLight** provides an opportunity for businesses to bring to light their best practices at work and thereby such a **FOCUS**.

Presenting  under this feature.

# Making cargo handling more professionalised

**T**erex Port Solutions (TPS) recently launched its first mobile harbour crane, the Terex® Quaymate M50, designed as an entry level model for small maritime and river ports aiming to professionalise their cargo handling. Powered with an efficient diesel-electric drive, this purpose-built crane model features 50-tonne maximum lifting capacity, 36 m radius, and 50 m/min maximum hoisting speed, providing operators of smaller ports with an economical as well as user and environmentally friendly machine. It is designed for light to medium-duty application, cost-effective working speeds and a life cycle appropriate to the application. The crane is also suitable for limited investment budgets, and helps operators with continuous-shift loading and unloading of virtually all types of cargo on inland barges and coasters.

Based on the proven Terex Gottwald harbour crane design and technology, the Quaymate M50 is developed by Terex engineers from Western Europe, China and India. It is designed to replace all the conventional

telescopic, crawler and stationary cranes, excavators and other cargo handling equipment often found in small terminals and which are not built to cope with the harsh conditions often found in ports.

## Customer focused products

With the Quaymate M50, Terex has reinforced its strategic aim to develop products on a customer-driven basis. Dr Mathias Dobner, Vice President & Deputy Managing Director of Terex Port Solutions says, "Throughout the world new terminals are appearing and existing terminals are continuing to develop. This means that many operators are looking for their first harbour cranes or harbour cranes to replace non-port equipment, while others would like to add to their existing fleet. Such a market phase, in which many terminals in Asia now find themselves, presents a particular challenge for TPS, as it differs considerably from the demand situation in established ports. In many regions of the world, we are dealing with economies



that are at the start of a growth period. These markets demand functional solutions with cost-effective and rugged machines which firstly work reliably and secondly allow the terminal in question to grow.”

Dobner adds, “There was a good reason that engineers from Asia were significantly involved in the development of our new crane and that the crane is manufactured in our Chinese plant. For it is here that there is currently the greatest demand for such a crane. From here, the Quaymate M50 also has potential to enter other markets, too.”



### Dr Mathias Dobner honoured with ‘Personality of the Year’ award

Dr Mathias Dobner, Vice President Development, Engineering & Operation at TPS, was presented with ‘Personality of the Year’ at the IBJ awards. The recognition is presented every year to a personality who has shaped the bulk handling sector.

### Terex® Quaymate M50 bags ‘Crane of the Year’ award

Terex® Quaymate M50 mobile harbour crane bagged the ‘Crane of the Year’ award at the IBJ awards in Rotterdam, The Netherlands. Klaus Peter Hoffmann, Vice President & Managing Director, Terex Port Solutions, sees the award as a confirmation of the customer-driven strategy of TPS.

The Indian subcontinent offers significant potential for the transport of cargo through its inland waterways. This is where the Terex Quaymate M50 mobile harbour crane comes into play, since it is a powerful machine for cargo handling in small maritime and river ports. This cost-effective new crane helps operators to both increase productivity and unlock potential along waterways in India.

### Ravin Wadhawan

Regional Director – Sales & Service  
Terex Port Solutions

### Robust, cost-effective and easy-to-operate

The Terex Quaymate M50 mobile harbour crane is compact in design, provides a robust and user friendly construction and – terminal structure permitting – can be operated in the terminal with power supplied via the harbour mains, without generating any exhaust emissions in the port.

The crane is classified for a sufficient number of load cycles and can be easily maneuvered for positioning on the ship. It has a powerful electrical main drive, its high-positioned cab provides a good view of the job site and the stairway through the inside of the tower protects the operator from the weather when accessing the tower cab. Finally, the high boom pivot point and horizontal load path help create the conditions for fast and collision-free work on the side of the ship and with cargo on deck.

### Option packages

As with all other cranes from TPS, options and option packages that enhance versatility, level of equipment and therefore productivity, are also available for the Quaymate M50 mobile harbour crane. The crane can be supplied with a cable reel and electric hook rotator for operation with automatic spreaders for container handling, or with motor grabs for bulk and scrap handling.

TPS aims to grow along with its customers as a provider of complete port solutions, offering products that complement each other. TPS offerings can be combined to form complete solutions to help customers respond to changing local situations.

### About Terex Port Solutions

Terex Port Solutions is part of the material handling & port solutions business segment of Terex Corporation that supplies customers in ports with a unique combination of machines, software and services under the Terex and Terex Gottwald brands. Whether it is ship-to-shore cranes, reach stackers or fully automated, integrated handling systems for containers and bulk, Terex Port Solutions provides reliable solutions for rapid, safe, efficient handling of all forms of cargo with low downtimes and excellent return on investment. <sup>118</sup>

**I**magine waking up to new scenarios outside your private veranda every few days! Well, that's possible on a ship, not a regular cruiseliner, but something special that combines the luxury of a private yacht and a vacation home. This is exactly what life is aboard "The World," the largest private residential ship in the world which is 644 feet tall.

Conceptualised by Knut U Kloster Jr. (a passionate sea traveler) and launched in 2002, *The World* has navigated around the globe touching some of the most exotic and well travelled ports. With 165 individual homes on-board the residents not only individually own the residences but collectively own the ship. They have an endless thirst for knowledge, adventure, travel and entertainment.

**Daily routine aboard The World:**

- Morning fitness regime – swim, jog or walk along an open-air track just as you have always done
- Enjoy a kayak ride from the onboard marina, practice yoga, or indulge in a massage at the spa
- Manage your business eased by the sea
- After a long and eventful day, dine in a world-class restaurant or enjoy an intimate meal at home
- Taste some fine hand-rolled tobacco at the Cigar Club
- Spend your night beneath the stars in a coveted bali bed



# Home on High Seas



**The journey**

The ship's yearly itinerary is collectively decided by the captains and residents based on the best sea routes and residents' personal interests. Itineraries are finalised about two to three years in advance by a community vote. An average of three-day stay is planned at every port to ensure the travellers have sufficient time to explore their favourite destinations. Unique enrichment programmes are offered onboard through expert guides and lectures in various fields such as diving, wine tasting, world cultures, to prepare the residents for each port being visited.



## COAL LOGISTICS

# BECOMING CORE FOCUS

Demand for coal is increasing rapidly, but the corresponding improvement in transport infrastructure to facilitate quick movement of the fuel to consumption points is yet to catch up

Ritu Gupta



**N**ominated Rajya Sabha MP Anu Aga recently gifted Union minister Piyush Goyal a book called 'Power Struggle,' which was authored by her late husband Rohinton Aga two decades ago. Goyal says he got several solutions to India's coal supply problems from the book. One was optimum utilisation of coal and the second, rationalisation of supplies. Following this, on September 3, 2014, he allowed state-run NTPC and Gujarat government utilities to swap coal. NTPC, the country's biggest power generator, had been importing coal at ports in Gujarat for its Korba power plant in Chhattisgarh, whereas the Gujarat utilities were procuring it from Coal India's Korba mines. The power ministry believes the swapping arrangement would unclog coal supplies and help save ₹400 crore to ₹500 crore, mainly in terms of logistics cost.

Indeed, such changes are crucial as India's coal industry is in doldrums due to numerous logistics and transportation constraints. With coal production increasing over 6 per cent and off-take at only 3.2 per cent during the year 2014, logistics and coal evacuation is becoming a core focus area for companies like Coal India Ltd (CIL). At present depending on final destination and the grade of coal, the logistics cost sometimes represents more than half of the landed cost for the consumer. According to industry experts, the efficient use of coal requires an enabling infrastructure support to transport the coal from mineheads to the consumption centres. But the transport of coal is in a pathetic state, with almost 60 per cent of the transport happening via the congested Railways. The rest 28 per cent takes the road route, and 12 per cent depends on the merry go round (MGR) system. "There is a perpetual mismatch between availability of railway wagons and production at pitheads," says Jawahar Goel, ex-CGM (marketing) of CIL. For instance, in January 2015, coal stock at private power projects was running critically low as the Railways had expressed its inability to meet the demand for wagons for ferrying fuel. During a meeting called by the power ministry on the transportation logjam, the railways said they were not consulted about their carrying capacity before finalising FSAs (fuel supply agreements) with the power plants.

Under the FSAs, CIL has to supply at least 65 per cent of the quantity assured in the letters of assurance issued to the projects. But even the minimum quantity was not dispatched because of inadequate wagon allotment. Industry sources claimed about 70 per cent of available rakes are allotted to public sector power projects, while the private power producers have to share the remaining 30 per cent rakes with steel and cement units. Following this, the Association of Power Producers in a communication to Railway Minister Suresh Prabhu, lodged a complaint that a lack of coordination between CIL and the Railways was leading to acute shortages of coal at power plants across the country. "It is not very uncommon for the Railways to express its inability to transport coal," says Ashok Khurana, director-general of Association of Power Producers.

Till recently, CIL was supplying 304 metric tonnes (mt) of coal to power firms annually. Another 78,000 mw power capacity was to come on stream by March 2015, and this required an additional 308 mt of coal, taking the overall supply to 612 mt. Forced by two Presidential directives, CIL had agreed to supply 85 per cent of the new demand, or 262 mt, under the new fuel supply pacts. At least 39 mt (15 per cent of this supply) was supposed to be met through imports. So, imported coal demand from the power sector was expected to jump by 42 per cent from 92 mt to 131 mt ending March 2015. However, the logistics capacity of railways has not witnessed commensurate capacity addition to cater to the unprecedented import demand within the period. Presently, every rake transports an average of 3,800 tonnes of coal a day. This means, transporting 39.3 mt of imported coal to power plants requires an additional 28 rakes per day – a 17 per cent jump in rake demand over current levels. This is in addition to the 160 rakes, which were required for transporting 223 mt of domestic coal by March 2015.

Another factor that severely limits coal transport is a lack of evacuation corridors. The government had planned to construct three corridors connecting coalfields across three states – Jharkhand, Odisha and Chhattisgarh – to free up evacuation of 300 mt of coal

annually. The three corridors, originally planned to be commissioned in the XI Plan, are yet to become a reality. According to sources, work on the three rail lines has come to a standstill because of land acquisition-related issues in the Naxal-affected states.

Apart from problems posed by the Railways, the transportation of coal is marred with inherent problems like reserves situated in most difficult geographical terrains which is vastly scattered and bulk of the coal lies in the belt of eastern corridor under the forest belt and tribal areas. Furthermore, logistics hurdles are also seen in importing coal. Most of the coal is being handled by major ports only, and most of them do not have advanced and modern technology for coal and bulk cargo handling. India's 12 major ports have a coal handling capacity of 66 mt. This is expected to go up to 177 mt by the end of 2016-17. However, the projected requirement is 265 mt. While the demand for coal has increased rapidly, the growth in corresponding capacity has not been matched. Most of the addition in coal handling capacity, for instance, has come in the east coast. "We are anyway working overcapacity. Ideally, we should be working on 70 per cent capacity utilisation. However, most of the projects awarded last year were for handling coal," said a senior shipping ministry official.

According to the Kolkata-based Indian Chamber of Commerce, largely

**The transport of coal is in a pathetic state, with almost 60 per cent of the transport happening via the congested Railways. The rest 28 per cent takes the road route, and 12 per cent depends on the merry go round (MGR) system.**

## Expediting infrastructure projects

Recently India's Coal Ministry has sought the intervention and facilitation from the Railway Ministry and the Prime Minister's Office to bring forward the completion date of a new railway network, from 2017 to 2016, to enable major Coal India Limited (CIL) to evacuate an additional 300-million tonnes a year of coal. In a communication, the Coal Ministry stated that the early completion of the \$1.14-billion construction of new railway lines across the eastern and central Indian provinces would enable CIL to free up about 300-million tonnes a year of coal, which could not be mined in the absence of such transportation logistics in the regions. CIL has already drawn up a schedule to procure its own railway rakes for coal freight to be run on the network currently under construction by government-owned and operated Indian Railways, the communication noted. The railway links include Tori-Shivpur-Kathautia, linking the North Karanpura coal blocks in Jharkhand, the Jharsuguda-Barpalli-Sardega link connecting the IB Valley coal block, and the Bhupdeopur-Raigarh-Mand link connecting coal blocks in Chhattisgarh.

The doubling of rakes available to CIL to around 450 would enable the miner to carry 300-million tonnes a year of dry fuel. The Coal Ministry had pointed out the inordinate delays already suffered by certain railway projects – The project linking North Karanpura coal blocks was started in 1999, with scheduled completion by 2005, but to date only half the project work had been completed. Similarly, the project to link the IB Valley coal blocks had been scheduled for completion in 2009, but was yet to be commissioned, even though CIL had handed over its share of funding to the Indian Railways.

representing eastern Indian coal producing and consuming industries, shortcomings of Indian ports in handling larger volumes of coal include inadequate navigational aids, bunching of vessels, inadequate cargo handling equipment, high downtime of equipment and insufficient information technology implementation. An approach note prepared by the Planning Commission said that Indian ports would have to build capacities with a minimum draft of 18 m to accommodate 150,000-dwt capesize vessels instead of relying on 75,000-dwt Panamax vessels currently used for importing coal. At present, very few ports like Gangavaram in Andhra Pradesh and Mundra in Gujarat, can accommodate larger capesize vessels. But capesize vessels are given priority by ports in Australia, a major source of imported coal into India, as Panamax vessels have a longer turnaround since they have to wait longer for a berth. "Such inherent drawbacks of the ports and lack of adequate handling capacity by railways is leading to significant losses for us," says Abhijit Choudhary, general manager, shipping, JSW Steels.

The effect of all these problems is clearly visible in the economic losses being incurred – the revenue implications of the coal inventory build-

up is huge and an estimated ₹8,400 crore remain unrealised by the coal firms with an average price of ₹1,200 per tonne of the coal. This also voids the centre and the state exchequer an extra cash opportunity of more than ₹2,100 crore in terms of taxes and duties. Railways also have an opportunity revenue loss to the tune of about ₹2,000 crore in freight earnings. According to industry experts, the situation needs to be rectified immediately, as many projections show that coal traffic by rail mode would surpass 830 million tonnes by 2030. "There cannot be a straight-jacket best system applicable for transportation of coal to all consumption centres. In fact, depending upon the situation and specific needs, the market does use various options available in modes of coal transportation, sometimes singularly and sometimes in a mix," says Goel.

Some experts aver that an alternative means of transportation of coal in India is the option of coal slurry pipeline technology, as in vogue in the US. Initial studies, during 1976-78 and detailed study in 1992, have observed that the pipeline transport is highly capital intensive but cheaper than rail only for throughputs of over 10 million tonnes per year, and for distance over 800 km



in flat terrain. If the technology is proved to be techno-economically attractive, one cross-country pipeline from Northern Karanpura to northern power houses and another pipeline from coalfields in Odisha to the western sectors power houses could be contemplated.

Other solutions to the problem include modernisation of the railways. In countries like Australia railway transport of coal is by rakes which are having as many as six locomotives, capable of hauling 148 wagons aggregating to a length of 2 km. A rake of that size carries about 8,500 tonnes of coal. In India, at present a rake carries about 3,500 tonnes of coal only. For transportation of such large volume of coal, Indian Railways shall have to consider increasing the payload of the wagons and/ or the train size to have fast turnaround cycle through the dedicated coal corridor. "In case railways is not in a position to build such a network all by itself then such network can be constructed on BOO basis by a consortium of user industries utilising the coal corridor. It could also be built on public-private partnership basis. In fact, there is immense scope for developing core business competence in coal transport logistics encompassing activities in road/belt transportation of coal from pithead to railway siding, managing tracks and rolling stocks for rail transportation of coal and then shifting coal from railway terminals to points of consumptions. "Specialised coal transport companies can offer definite run schedule for coal movement by commissioning advanced information technology based cargo tracking system, which would be saving both inventory costs of buyers and infrastructure idling costs of coal producers," says an official of Mercator, which accounts for a significant portion of coal logistics in India.

Another much talked about solution is the use of inland waterways. The National Thermal Power Corporation (NTPC) has started using the waterways to transport coal to its Farakka power station in West Bengal. Moving coal through waterways is helping NTPC save nearly 15-20 per cent of the transportation cost through land.

### Problems of coal logistics:


- Non-availability of railway rakes in quantity required
- Railways charging on dead freight & not on volume
- No dedicated freight transport rail corridor
- High time taken by railways to transport coal from ports to power plants
- Land area is a major constraint at ports
- Inadequate draft at ports thus limitation in handling large size vessels
- Night navigation not available at many ports
- Non-availability of mechanised berths at ports
- Lack of support infrastructure – tugs, flotilla, IT systems etc
- Environmental concerns
- Inadequacy of dust suppresser & fire fighting equipment
- Increasing distance between mines and plants
- Lack of planning on business lines by railways
- Indian 'Golden Quadrilateral' has 25 per cent freight capacity but has 60 per cent freight movement
- Untrained personnel

### Emerging options and solutions:

- Dedicated freight corridors by railways
- Mumbai – Delhi 'Industrial corridor' to come up along the western corridor
- Western & Eastern corridors to be partially funded by Japanese banks & World Bank respectively. Expected to come up by 2016-17
- Inland waterways – another emerging option
- Washeries should come up near ports
- Handling at non-major ports increasing at CAGR of 43.8 per cent from 2008
- Dredging is required at all ports regularly
- Maintain train inside ports
- Proper scheduling of trains required

The public sector power producer has entered into a tripartite agreement with Inland Waterways Authority of India and Jindal ITF for this mechanism for seven years. About 3 million tonnes per annum (mtpa) of coal is being transported to the Farakka plant through inland waterways. P Raychaudhury, executive director, transport and shipping, Steel Authority of India Limited, says that coastal movement should be for both finished products as well as raw materials. According to him, SAIL is very keen to use inland waterways for cargo movement. "As capacity of steel plants goes up, requirement of cooking coal will go up, but there are logistics constraint for the movement of coal. There are two national waterways in the vicinity of steel plants, but their roadmap is not conducive for use by the steel plants." he avers.

According to Choudhary, dedicated freight corridor planned by railways is also another viable solution, but delay in its construction is spelling doom for the industry. "The corridor and the plan of feeder routes from the existing network to connect the difficult areas are the right step towards mitigation of logistic barriers. This is one of the best examples of developing the infrastructure through the PPP mode of development, but the government should take its construction in all earnestness," says Choudhary. The 1,839-km line of DFC, stretching from Ludhiana in Punjab to Dankuni in West Bengal, was to absorb a bulk of the coal traffic from four coalfields including Mand Raigarh in Chhattisgarh (100 million tonnes per annum or mtpa), Korba in Chhattisgarh (125 mtpa), IB Valley in Odisha (192 mtpa) and Karanpura in Jharkhand. The contract for the first of the three phases in this corridor was awarded recently after a two years delay. DFCC has now set a deadline of 2016 for completion of the first phase.

Apart from DFC, localised solutions such as development of captive corridors for coal wherever applicable coupled with other transport structure such as merry go round system, using inland waterways to the fullest could also go a long way in addressing coal logistics issues in the sector. Indeed, the steep increase in the growth of coal demand and production puts up a challenge before the country. It is crucial to take up well planned execution of infrastructure and logistics for transportation of coal. 



# Adani Hazira Port gets rail connectivity

The rail service at the port will ensure quicker turnaround and loading of rakes, and is expected to attract more cargo from other ports which are facing severe congestion

Ritu Gupta

**A**dani Group's Adani Hazira Port Pvt Ltd has got another feather in its hat. The port has now got the much awaited rail connectivity. From April 1, 2015, CONCOR will commence rail services to Hazira via Kribhco container siding at Hazira, which is about 17 km from the port. CONCOR will be providing rail services from Tughlakabad and Dadri ICDs to start with, and later others will also be connected, including those in Ludhiana, Pithampur and Ratlam. According to industry experts, the new development will help the port in attracting cargo that is currently facing

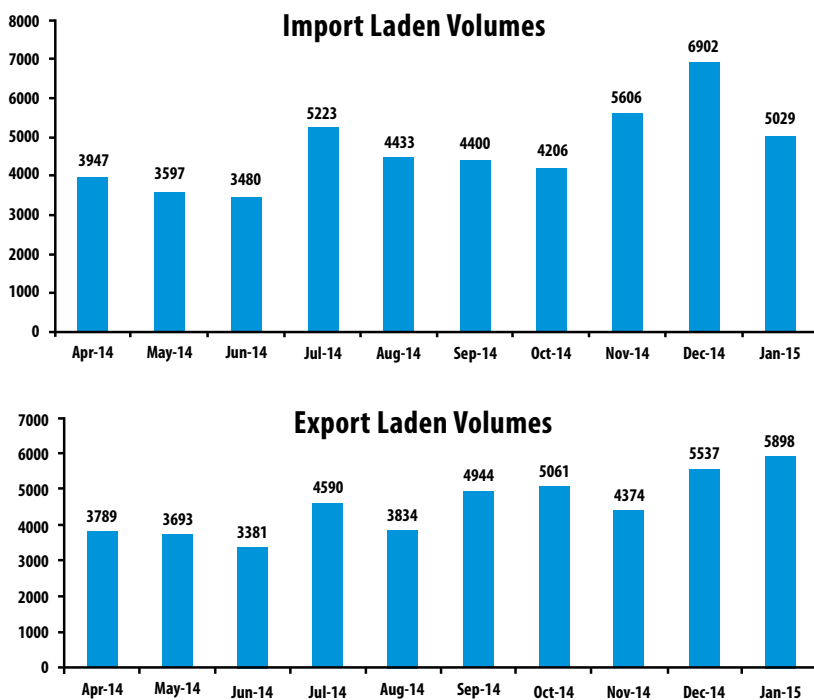
severe congestion at Nhava Sheva ports. "A lot of congestion happens in the railway corridor after Surat. Therefore, shipping lines can save a lot of time by using our port. It is expected that by using our port instead of JNPT, shipping lines can save at least 12 hours. Moreover, since the port is less used as compared to JNPT and Nhava Sheva, connectivity would be much better and the turnaround time and loading of rakes would be much faster," said an official of the company. According to him, the cost will also be very competitive. As per an agreement that will be signed between CONCOR, KRIL and Adani

Hazira Port, the customers will get hassle free and seamless operations. They will only have to interact with CONCOR for getting the services, and can trace their shipment online. Instead of engaging any other service provider, the port management itself will transport the container from the docks to the Kribhco container siding and vice-versa. This will help customers be more assured about their shipment.

Another development which is bound to give impetus to the port's development is the fact that it will soon start services to the Far East region. "This will be a game changer for us, and also reduce the cost for the customers, as a lot of shipment from far east is used in South Gujarat, a region closest to our port," said the Adani official. The port is already getting regular services from all the key trading hubs across the world.

Indeed the port has achieved a lot within a short time span. It is well connected by road via a multi-lane highway. It lies 270 km north of Mumbai and 35 km from the city of Surat. Its location provides access to industrial zones in South Gujarat, North Maharashtra and Central India. Under Phase I development, the port has two container berths and three multi-purpose berths operational. The fully developed port will have 13 berths, including three for handling liquid cargo. Facilities available at the port include 24x7 customs at the terminal gates (which results in round the-clock gate-in of containers), EDI connectivity (ICE GATE 1.5 version) and round the clock berthing and unberthing. The port also has on-dock Container Freight Station with stuffing/de-stuffing facility and customs inspection. [img](#)

Hazira: Volume Performance (April '14 - January '15)



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Logistics - Totally Simplified

**W**hen Modi was elected as the Prime Minister many said that good days are in the ushering. This prediction may have proved wrong for some aspects, but where coastal shipping is concerned, it is proving to be very true. The new government since its inception has been giving a lot of attention to coastal shipping, which has a paltry 7 per cent share in the overall local cargo movement in the country. This share is very low when compared with Europe and other nations in Asia where it has flourished due to focused policy interventions. The most recent policy move to help coastal shipping has come in the form of a decision to formulate a plan to revive several of the country's 133 non-functional ports. The ministry has prepared a concept note for forming special purpose vehicles by the Shipping Corporation of India and the Dredging Corporation of India along with the state governments and private operators. Most of the non-functional ports face dredging issues or lack terminal facilities. "This collaboration would be on a revenue share basis," said an official of the shipping ministry. The ministry will develop five coastal ports in the next one year itself as part of the plan. To start with, ₹30 crore per port would be provided by the government to kick start the development. "Coastal shipping in India has immense potential, which has so far been neglected. This would be a very good initiative by the government in promoting the coastal movement," says Vishwas Udgirkar, senior director, Deloitte India.

The proactive policy decisions are also getting a boost by investment from industry players. For Instance, Mumbai-based Shreyas Shipping and Logistics (SSL) has recently become the first company to have services for domestic containerised cargo at every major port, from Mundra to Kolkata along Indian coast. It says the initiative is in line with the Sagarmala project of Indian government. The ability to offer a comprehensive domestic coastal container service has been made possible by the acquisition of the 1,600 teu SSL Gujarat for \$4.5 million in January this year. The upgraded service will connect Mundra, Tuticorin, Katupalli, Vizag, Cochin and Jebel Ali. Two vessels, SSL Mumbai and SSL Gujarat, are being

deployed to maintain a 28-day voyage rotation with a fortnightly frequency, which it is planned to increase to weekly within the foreseeable future. SSL will also operate a feeder service between Kolkata and Haldia to Vizag, where cargo will be transhipped onto the company's PIX2 service to ports in the Gulf. "The move of Shreyas is very much in line with the vision of ministry for Indian coastal shipping," says Ritesh S Ramakrishnan, director, strategy and business planning, at SSL's parent company Transworld Group. "The new

policies and initiatives of the ministry of shipping will go a long way in developing coastal shipping," he added.

Indeed, the ministry seems completely geared up to develop coastal shipping. It is also looking to hire a private consultancy to study the scope of coastal shipping in India and ways of promoting it. It has also announced guidelines on priority berthing of coastal vessels at ports owned by the Indian government. Accordingly, these ports will accord priority berthing, at least on one berth, to dry bulk/general cargo

# NEW THRUST WITH RENEWED INTEREST

A range of initiatives including priority berthing, incentives and funding supported by favourable legislative framework are giving a boost to coastal shipping

Ritu Gupta



Commodity	Origin	Destination
POL	JNPT, Kandla, Mundra	Mormugao, New Mangalore, Cochin
Iron ore and Steel	Mormugao	New Mangalore, Cochin, Tuticorin, Mundra, Kandla
Fertilizer and Fertilizer Raw Material	Paradip, Haldia	Ennore, Chennai, Tuticorin, Vizag
	Kandla, Mundra, JNPT	Mormugao, New Mangalore, Cochin
Coal	Haldia, Kolkata	Paradip
Cement	Paradip	Tuticorin

coastal vessels to enable shippers to transport goods from one port to another port in India, irrespective of origin and final destination of the cargo. This will be in addition to the dedicated berths for handling of coastal thermal coal already existing at these ports. The ports will also have to give priority berthing to coastal container vessels at private terminals and at container berths run by the ports themselves. Coastal vessels accorded priority berthing will not be liable to pay priority berthing charges.

The shipping ministry is also preparing an incentive scheme for modal shift of cargo from road/rail to coastal shipping. In case of bulk cargo, all new coastal cargo carried on Indian flag vessels on demonstration of a fresh modal shift would be eligible for an incentive of 50 paise per tonne per nautical mile up to a maximum of 500 nautical miles, according to the scheme being finalised by the ministry. The loading ports will administer the release of incentives based on their records of coastal movement by a particular shipper. These ports will be eligible for periodic disbursement of such incentives by the shipping ministry. Initially, the new cargo eligible for the incentives will be fertilizer, foodgrain, steel, marbles, tiles, cement, sugar, salt and automobiles. The list could be expanded further based on trade demand and market trends and availability of funds. These incentives will be available for a period of five years. In the case of coastal container cargo transported on Indian flag vessels, a rebate of up to ₹1,000 per container in terminal handling charges at both loading and unloading ports is being considered,

subject to a cap of 500 containers per vessel.

The proposed incentive support to coastal vessels, based on the recommendations of a seven-member panel headed by P V K Mohan, chairman of the National Shipping Board, is expected to bring in the desired ideal modal mix, which will have a direct as well as indirect impact on the country's fuel bill, resulting in reduction in fuel cost and creating positive social and environmental impacts. Globally, countries are adopting freight modal shift programmes by providing incentives as a financial reward for switching the shipping method of choice from truck to rail or water. The ground for such an incentive is that this shift would generate social benefits that offset the cost of the incentives provided.

While the coastal shipping of containerised cargo plays a relatively small role and is limited to tiles, marble, white goods and chemicals, there is an increasing opportunity to convert agricultural goods currently moving via bulk, break bulk or rail to coastal mode, especially along the west coast. Coastal shipping seems to be a feasible option for movement between most ports on the west and east coasts. Some prominent coastal shipping routes include Chennai to Chittagong/Yangon through Haldia/Kolkata, southbound cargo from Pipavav/Mundra to Kochi and other ports, and inland and coastal movement in and around Goa.

According to experts, ways to develop coastal shipping include incentivising ports to develop additional small berths for domestic cargo, as

domestic ships currently waste 55 per cent of total voyage time due to port delays. State governments should also play a vital role in the development of coastal shipping. The Kerala government, for instance, since March 2013 had long ago chalked out an action plan to shift 40 per cent of its cargo movement through the roads to coastal shipping by 2020. The state cabinet had also decided to provide incentive to the shipping companies that provide service on the coastal route, with the companies getting ₹1 per one tonne cargo to transport 1 km and ₹1 for each passenger for 1 km. The state government has currently allocated ₹0.03 billion toward the Coastal Shipping Promotion Fund (CSPF), which, when fully grown, will have a corpus of ₹3 billion.

Allowing the co-loading of domestic and EXIM cargo on coastal vessels is also another much needed step to boost coastal shipping. Currently, the cabotage provisions in the Indian Merchant Shipping Act do not allow foreign flag vessels to carry local cargo from one Indian port to another. According to some industry players, there is limited capacity in the Indian shipping industry and thus relaxation on cabotage law is essential. Foreign flagged ships will not only bring the required capacity, but also competitiveness in prices and ease of planning in case of transshipment. "Coastal cargo movement has inherent issue of one directional traffic leading to ship coming back empty in return trip. If foreign flagged ships are allowed for coastal cargo movement, overseas cargo ships can carry coastal cargo and the issue of empty return can get addressed," says S N Srikanth, senior partner of Hauer Associates.

Apart from relaxation of cabotage rules, experts aver that policies around subsidies for capital investments in coastal shipping may be revisited, as has been done for the road, rail and airline sectors. For coastal shipping to realise its full potential, it is important that issues, such as the development of routes, capacity addition by port operators, and shipping lines and incentives for shippers and ship owners, are addressed. The Ministry of Shipping has been taking the right steps to develop coastal shipping but it can further foster the growth of the segment by reducing port duties and developing supporting infrastructure. 

# Recover, Save and Reuse



The Green Hybrid energy recovery system for material handling machines introduced by Sennebogen offers 30 per cent energy savings during machine operations

Omer Ahmed

several times greater is available via the gas pressure accumulator. Through this measure, relatively low compression is achieved in the gas pressure tanks; this means that the pressure in the gas – regardless of the work position of the hydraulic cylinder – changes to a lesser degree. The positive result of this concept is that the force that the system imparts to the hydraulic cylinder is virtually constant over the complete spring path and thus a uniformly high level of energy is fed into the system.

Through this measure the machine is virtually equally supported in all work areas and the primary energy required for drive is significantly less.

### Long service life and reliability

The fact that in the Green Hybrid system, only relatively minor compression of the gas is necessary, means that temperature fluctuations are substantially less pronounced than is the case with a conventional system, in which the gas is more highly compressed in a single cylinder, and thus is continuously subject to significant temperature changes. Moreover, a system with fewer temperature and pressure fluctuations works much more effectively – higher efficiency occurs so that the accumulated energy can be returned into the system virtually completely as force. Components are protected and the reliability of the system is increased. [img](#)

**T**he latest innovation at Sennebogen, the leading German manufacturer of material handling machines, is the Green Hybrid energy recovery system that provides energy savings of up to 30 per cent. The system essentially consists of a gas accumulator in the rear of the machine and a hydraulic cylinder on the boom. This sophisticated solution saves the energy in the system when lowering the boom and makes this saved energy available again for the next lift, virtually loss-free.

### Functionality: Use of standard hydraulic components

The Green Hybrid system is a combination of hydraulic system and gas pressure accumulator and functions in a manner similar to that of a spring, which is compressed when lowering the equipment in order to additionally make this force available with the next lift. In the design of the cylinder, for the moving parts of the equipment, Sennebogen relies on a functionally

proven and standardised hydraulic cylinder. Thus the design ensures that all functional elements, pressures, temperatures or seals completely correspond to the proven solutions required for demanding materials handling implementation. Due to the pressure of the hydraulic fluid in the cylinder in the rear of the machine, gas volume is compressed in multiple piston accumulators and the energy obtained through the lowering movement is buffered in gas pressure tanks.

### High spring force that is virtually uniform over the entire work path

In the Green Hybrid energy recovery system, the hydraulic system component in the piston accumulators is separated from the system component with the technical gases. The quantity of hydraulic oil, as well as the quantity of gas in the system, can be individually adjusted. As opposed to other systems that merely use the volume in the cylinder for gas compression, in the Green Hybrid system, a volume that is



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**S**uresh Prabhu, the Union Railways Minister, was recently quoted as saying by the media that by the end of May 2015, the ministry will review the wagon leasing scheme, special freight train operator scheme, private freight terminal scheme and liberalised wagon investment scheme for making them more liberal, broad-based and attractive to partners from the private sector. "We will also consider new and lighter design

of wagons for better fuel efficiency and carrying capacity," the minister said. The railway ministry has also decided to increase the procurement of wagons to 16,800 for 2015-16. The ministry had set a target to buy 12,857 wagons in 2014-15. Companies such as Texmaco and Titagarh Wagons expect an improvement in the capacity utilisation of their manufacturing units, following rail minister Suresh Prabhu's announcement of an increase in the annual freight

# Changing tracks

Observing the deficiencies in the 'Own your wagon scheme' and its inability to attracting private investment, the railway ministry metamorphosed it into 'the wagon investment scheme'

Ritu Gupta







carrying capacity to 1.5 billion tonnes from 1.1 billion tonnes. "The provision for the procurement of 16,800 wagons in 2015-16 will also bring cheers to the wagon industry, which has been starved of adequate workload," said Ramesh Maheshwari, executive vice-chairman of Texmaco Rail and Engineering.

Indeed, the new ministry's focus on the wagon fleet is quite needed. In the past also the world's largest employer has seen how difficult it is to get investment into a capital intensive sector such as the wagons if the schemes are not friendly for the corporates' pockets. A classic example of this is how it metamorphosed the own your wagon scheme because of its unpopularity and introduced the wagon investment scheme which has got substantial amount of investment for the Railways. The own your wagon scheme, introduced many years back, as a measure to open up the railways for private sector participation, did not take off because the railways wanted to control the privately owned wagons and use them to fit its own scheme of things. "The scheme was a major step to liberalise railway services and break Concor's monopoly. But, due to railway's rigid intervention, it did not take off successfully. If a company invests in wagons, it should have the right to use it exclusively," said an official of the Indian Railways. The scheme allowed private ownership of wagons but did not allow the owner to use them as they pleased. A wagon owner had to merge his wagons with

the general pool of railways and operate within a closed circuit or from a specific point origin to a specific cluster of destinations and vice-versa. The circuits over which these wagons would operate were to be decided mutually between the railways and the wagon owners. However, in many cases the owners and the railways could not converge on an understanding.

The unpopularity of the scheme was a setback both for the railways and the private companies, as lack of adequate amount of wagons was hampering business. Many companies expressed the fact that if the wagon investment scheme comes in a modified form, ensuring that investors would have an exclusive right on the wagons without going to the general pool of the railways, they would like to participate. "A modified wagon investment scheme was the need to address the issue for our company," said a CIL official.

Considering such a feedback, the own your wagon scheme was later changed to Wagon Investment Scheme, to augment the Railway's rolling stock through private sector participation. The new scheme required businesses to invest in a minimum of one rake and maintenance spares. The policy allows investment in special purpose wagons (SPWs) and high-capacity wagons (HCW) by end-users, producers, manufacturers and consumers. Piece-meal procurement of wagons was allowed, although there was no ceiling on the number of wagons a company may own. The wagons procured under the scheme still became a part of the general pools of wagons of the Indian Railways. The railways and private container operators incur a capital investment of ₹10-17 crore on a single rake (which consists of 40-44 wagons). This means they pay ₹25 lakh to ₹40 lakh for different categories of wagons.

The returns on investment in the scheme come in the form of 10 per cent freight rebate on assured additional wagons supplied to the customers every month. The railways has said that for investment in every CN (water-tight and covered) wagon rake that are used for moving perishable and high value commodities such as cement, supply of four additional rakes per month would be guaranteed. Customers would be

The own your wagon scheme, introduced many years back, as a measure to open up the railways for private sector participation, did not take off because the railways wanted to control the privately owned wagons and use them to fit its own scheme of things.

entitled to at least 10 per cent freight rebate on these rakes for 15 years. For investment in every BOX'N (high sided and open) wagon rake that are used to move commodities such as coal and iron ore, supply of six rakes per month would be guaranteed with at least 10 per cent rebate for 10 years. "The policy provides container train operators the option of taking wagons on lease. So during the busy season, we can take wagons on lease and return them during the lean season," says Sharat Misra, director, Inlogistics Ltd. Top corporate have been investing in the schemes, and these include Maruti Suzuki, Vedanta Aluminum, ACC, Ultratech Cement, Nalco, Balco, and Hindalco.

Citing examples of the US and Europe, where the policy is a huge success, a railway ministry official said, "Due to the scheme, the railways has been able to generate high traffic and revenue without any capital investment on wagons. The examples of the US and Europe show that the rail traffic has increased 3-4 times after the introduction of the wagon leasing system." According to industry experts, any further modification and liberalisation of scheme will usher in more investment for the cash starved railways and Prabhu is making headway in the right direction. **INB**

**T**hirteen years after India allowed 100 per cent FDI in shipping it has not attracted global shipping companies to invest in an Indian subsidiary owning Indian tonnage, even though this offers opportunities in Cabotage regulated coastal trade. Unlike in telecom or power industries, for shipping industry accessing the India market in EXIM trade, a foreign ship owner does not require to be located in India.

Far from attracting foreign investment, even Indian ship owners are more at home in Singapore and Dubai resulting in Indian shipping companies establishing Indian subsidiaries in these jurisdictions which offer substantial fiscal incentives for ship owners. Such subsidiaries invariably seek support of their Indian parent for financing the Indian controlled tonnage and also raising the revenue stream in the form of a charter or a drilling contract with

ONGC and thereby accessing India's booming cargo base but retaining its earnings overseas.

Studies show a positive contribution by the Indian Shipping Industry to the Indian economy with a 1 per cent change in Gross Tonnage (GT) is likely to bring about 0.0068 percent change in GDP. But it has been seen that while trade has increased, India's shipping has sadly not kept pace with it.

The Indian flag suffers from barriers in terms of tax and duty structures which make the Indian flag expensive for ship owners to register their ships.

To remove the hurdles and reduce the taxation burden on the ship owners, India adopted a globally followed taxation system for the shipping industry in 2004 by introducing a tax based on the cargo carrying capacity of ships. The tonnage tax regime in which close to 95 per cent of the global shipping fleet operates pruned the tax outgo of Indian shipping companies to 1-2 per cent of their income, compared with the corporate tax rate of 33.9 per cent.

However this benefit of the tonnage tax is negated by the prevalence of direct and indirect taxes made applicable to the shipping industry. These taxes together with the tonnage tax regime raises the tax burden to around 9 per cent making the Indian flag non-competitive globally. These taxes are listed below.

#### Direct Taxes

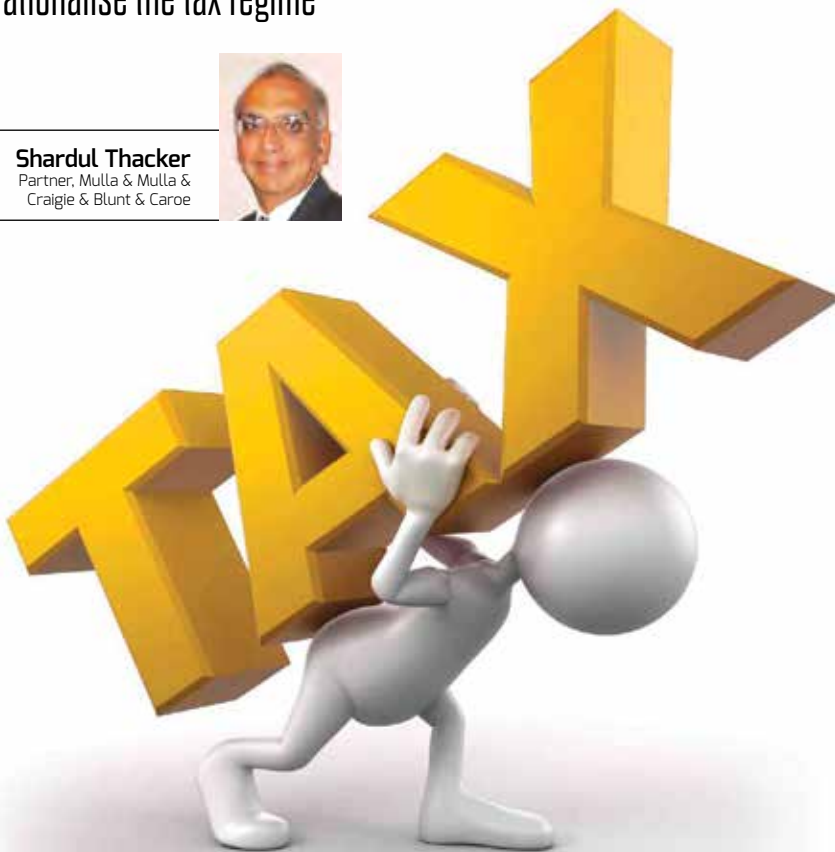
- Corporate Income Tax on interest and other income including the interest earned on a Tonnage Tax Reserve Fund
- Minimum Alternate Tax (MAT) on profit on sale of vessels – capital gains on a sale of a vessel even if the money is reinvested in upgrading of a more efficient eco-friendly vessel – MAT in the form of capital gains tax is applicable
- Dividend Distribution Tax
- Withholding Tax on interest paid to foreign lenders
- Withholding Tax on charter hire charges paid to foreign shipowners
- Seafarer's Taxation-cost to employer

## Making Indian Flag globally competitive

The taxation policy in the Indian shipping sector makes national flags non-competitive globally. Leading Maritime Lawyer, **Shardul Thacker** proposes corrective measures to rationalise the tax regime



**Shardul Thacker**  
Partner, Mulla & Mulla &  
Craigie & Blunt & Caroe



## Indirect taxes

- Sales Tax/ VAT on ship supplies/ spares
- Lease Tax on charter hire charges
- Customs Duty on import of certain categories of ships, stores, spares & bunkers
- Service Tax

## Opportunities of growth – will it be lost?

In July of 2014 the Government has permitted Indian shipping companies, with a view to facilitating growth of Indian tonnage to also own foreign flagged ships registered overseas, on condition the tonnage flagged outside India shall not exceed the owned tonnage in India and gaining 50 per cent Indian crew on such foreign flagged ships. This “Indian controlled tonnage” will be eligible to operate in Cabotage regulated Indian Waters.

The Shipping Ministry has announced the preparation of framework/rules for EXIM / domestic state owned cargo to be given long term support to Indian vessel for 3 – 5 years. Considering that half of the present Indian tonnage of 9.08 million tonnes is 20 years old, with an average of 17.5 years, 4 million tonnes would need to be replaced. Additional 16 million new gross tonnage would be required in the next 5 years to meet the growing Exim trade. This opportunity is valued at \$20 billion. Therefore with the foreign flag relaxation, Indian shipping companies can own 50 per cent of the new tonnage under foreign flag as foreign controlled tonnage. The foreign banks would have comfort in funding such new tonnage valued at \$10 billion enabling the Indian shipping companies to grow in Exim trade of offshore oil and gas energy industry offering opportunities in investing in FPSOs, FSRUs, LNG vessels and specialized vessels for project cargo, river sea transport vessels etc. The remainder of the \$10 billion could be debt in equity funding between Indian corporates and Indian lenders and thereby making shipping industry an opportunity for investment domestically.

In view of these new opportunities it would be essential for the

government to implement steps for rationalizing the impact of the tax regime on the Indian shipping industry to make it globally competitive.

Benefits of rationalization of taxation to the Indian shipping industry:

- (i) lower the foreign exchange outflow of freight bill payments to foreign shipping companies. This bill was \$57 billion in 2013-14,
- (ii) increase India's GDP,
- (iii) reduce the present exposure of India's dependency on foreign ships, securing the procurement of India's energy and food supply chain,
- (iv) Act as a second line of defense to the Indian navy in times of war.

Removing the infirmities created by these taxes and rationalizing them, could be implemented as follows:

1. The definition of ‘core’ activities for tonnage tax purposes should be modified to treat the incomes arising from book-profit on sale of vessels as core activities under the Tonnage Tax (TT) regime and not subjecting it to MAT

Book-profit on sale of vessels should not be subjected to MAT but should be treated as arising from ‘core activities’ of tonnage tax. Sale/ purchase of ships is intrinsic to the industry's core business. Major

maritime nations like UK, Ireland and Singapore have covered profit/ loss on sale of vessels under the Tonnage tax regime. Profit on sale of ships should form part of shipping income and be transferred TT reserves replacing MAT.

2. Chartering is an integral part of shipping and ship owners having extra capacity in a slack market usually find opportunity to fix long term charters to de-risk the shipping industry's cyclical phenomena. Chartering, being fundamental shipping activity and charter income being ‘core’ to shipping business, should be eligible for tonnage tax and not treated as royalty.
3. Interest income from compulsory tonnage tax reserves be treated as ‘core activity’ and be added to the tonnage tax reserve for acquisition of ships. Moreover, Double Taxation Agreements (DTAs) with countries like Belgium, China, Denmark, Germany, Netherlands, Malta, S. Africa, UAE, USA etc. have treated interest on funds as income from shipping operations. So the interest earned on TT reserves could be treated as income from core activities.
4. Zero rating of input services availed by the Indian shipping industry (either imported or domestically procured)



Since globally, input services for shipping industry are not subject to service tax, whether such services are availed domestically or internationally, service tax on import services could be zero-rated. These services include brokerage, commission and finance charges, general insurance services including P&I insurance, ship management services, manpower, recruitment and supply agency services

- Addressing the seafarers' taxation issue as Indian shipping companies face an acute shortage of seafarers:

India has one of the largest pools of seafarers in the world. The industry spends a lot of resources in their training and development. Since the introduction of tonnage tax, the shipping companies have provided approximately 1.5 lakh training man days annually. However, despite this, Indian shipping companies face an acute shortage of seafarers, particularly in the officers' category because of drift of personnel from Indian flag ships to foreign flags under the lure of higher 'take home' pay packets, without having to pay taxes in India. This needs to be addressed.

- Reinstating the exemption from withholding tax of 10 per cent on interest paid to acquire ships abroad, which were withdrawn in 2001:

Withholding tax on charter hire paid to foreign ship owners on ships taken on charter, etc. are high at 10 per cent compared to either nil or 2-3 per cent in different cases in Singapore. Reinstating the exemption from withholding tax withdrawn with effect from 1.06.2001 on the interest payment of ECB loans could be considered. Similarly withholding tax on chartering of foreign vessels could be removed.

#### Infrastructure status

Moreover infrastructure status should be given to the shipping industry and supporting industries like the shipbuilding and ship repair industry. Presently, the sectors categorized as infrastructure enjoy the benefits/concessions available under sec.80-IA of Income Tax Act, which provides

The benefit of the tonnage tax is negated by the prevalence of direct and indirect taxes made applicable to the shipping industry. These taxes together with the tonnage tax regime raises the tax burden to around 9 per cent making the Indian flag non-competitive globally.

for a deduction equal to 100 percent of the profits and gains derived from the infrastructure for 10 consecutive assessment years. The same benefits should be extended to the Indian shipping industry also to increase the tonnage and to make the Indian Flag more cost effective.

#### Procuring finance for growth of Indian Flag

For most lenders, the Indian flag is not an "approved" flag for financing because of a host of procedural issues. For instance, lenders have to make do with only provisional mortgage registration as security for one-two months following loan disbursement. Indian mortgage law secures only principal and interest, whereas the norm elsewhere is a mortgage which also allows lenders to claim costs associated with re-possession of ships following a default.

India's central bank has placed restrictions on borrowers to make default interest payments, mandatory repayments following an event of default and restrictions on corporate guarantees. The Reserve Bank of India has also imposed average life

restrictions, making the tenor and profile of ship loans inflexible. India is also not a preferred location to arrest vessels.

It is difficult for lenders to sell vessels pending litigation. Ships are a wasting asset and idling a vessel at a port costs millions of dollars. Globally, commercially oriented courts would typically allow the sale of the ship to take place within two-three months of arrest with the understanding that litigation can continue. But in India, ships can be sold for recovering money only after the litigation is concluded. By the time this long-drawn process is concluded, the value of the ship would have eroded significantly.

All these will have to also change if Indian companies want to tap capital from foreign lenders as also Indian banks.

#### Changes in Admiralty Law

India also does not have a federal admiralty law that deals with maritime disputes/cases. Instead, there are state-level laws and each state has different interpretations of the law. In particular, Indian courts have given disproportionate rights to unsecured creditors such as bunker suppliers, which is unacceptable to secured creditors.

#### Conclusion

It is only by implementing the above listed suggestions that will make the Indian flag globally competitive thereby stimulating the present low Indian equity in the shipping industry. Indian Corporates and Foreign Shipping Companies looking at opportunities offered by India's growing Exim and coastal trade will fund such growth. Indian shipping industry would be considered an opportunity for investment. Additionally, debt financing by both foreign and Indian lenders would become attractive for Indian flagged vessels. Non implementation of these reforms will only make the Indian flag expensive resulting in its further decline from its present share of 9.1 per cent in India's Exim trade. Opportunities will be lost to the Indian shipping industry which requires replacement and growth of 20 million gross tonnage over the next 5 years. [img](#)



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# The curious case of CASHEW

The changing dynamics of cashew nut industry in India in the last few years make the industry very unpredictable. While the production remained stagnant over the years, dependency on imports has grown tremendously to support the domestic consumption, which is growing at a 15 per cent year-on-year. On the domestic front, the earlier production and processing dominated areas like Kollam in Kerala are making way for the new emerging markets like Delhi, Andhra Pradesh and Gujarat.

**Itishree Samal**

“**H**ealth” and “Taste” are the two major determinants of the rising demand for cashew kernels in India as well as globally. The domestic consumption is seeing a double-digit growth, which is currently pegged at 2.5 lakh tonnes. Even the consumption of the broken variety is also on the rise by the confectioners, ice-cream makers, restaurants, caterers and sweet marts along with households. Cashew even made its entry into the corporate gifting culture during major festivals.

Despite its growing demand, ask any processor/importer/exporter about the prospects of the industry, everyone seems to be not so excited and have some sort of issues with the agricultural product. While at one hand processors and exporters feel they are not getting enough raw cashew nuts to process and export, on the other hand importers are having issues concerning congestion at source ports, liners not calling on time and extended transit time.

G Giridhar Prabhu, Proprietor of Achal Industries, a leading importer of raw cashew nuts (RCN) having industries across Karnataka and Mangalore, says, “We call it a ‘wicked problem’. Once the stuffing is done at source ports, we are completely clueless about the delay. Only thing we can do



is to check the tracking sheet to see the delivery dates getting extended. Shipping liners are failing to assure us the transit time,” adding that “While our concern remains getting RCN on time, but there are logistics issues especially when we import from West Africa.”

Talking on the similar lines, Krishnan G Nair of Kollam-based Krishnan Food Processors said, he once had a consignment that extended upto 90 days transit time.

He further says imports from West African countries take longer duration to reach the Indian ports than the East African countries. It takes anywhere between 35-60 days for the former route and around 45 days for the later, while normally it should take around 25 days for imports to happen from West Africa and 10 days from East Africa. Despite the liners claim fastest transit time of 23 days, it always gets delayed. In addition to it, if there is congestion or the ship doesn't call on time, the crop stays for more than 30-40 days at the port itself.

This congestion and longer transit time issue is further going to create problems for the importers with the changing dynamics of the raw cashew nuts production markets globally.

“Now what is happening is that the dynamics of the industry are changing. New markets are emerging in RCN production, which is complicating the trade,” says Pankaj N Sampat, Director, Mumbai-based Samson Traders.

### Changing dynamics in global markets

Historically, East Africa used to dominate the global cashew industry in raw cashew nut production with more than 50 per cent market share, which now declined to less than 10 per cent over the last few years. On the contrary, West Africa is emerging in RCN production, which had less than 10 per cent market share about 15 years ago, now contributing more than 50 per cent in the global share. Even production in Brazil has come down to less than 10 per cent which used to have 25 per cent 25 years ago. In the same time, Vietnam, which never was on the global cashew map 35 years ago, has been aggressively growing. It has emerged as the largest exporter of RCN



Cashew production - state-wise (Quantity in MT)			
State	2011-12	2012-13	2013-14
Maharashtra	223000	224640	236200
Andhra Pradesh	110000	118144	100420
Odisha	97000	100840	85710
Kerala	73000	76960	80120
Tamil Nadu	68000	62400	67390
Others	13200	145490	166720
<b>Total</b>	<b>692000</b>	<b>728474</b>	<b>736560</b>

and second largest producer of kernels in the world, since a decade now. In the year 2014, Vietnam produced 1.4 million tonnes of RCN, registering a 17 per cent growth over previous year. The country shipped around 306,000 tonnes of locally produced cashew kernels abroad in 2014.

In raw cashew nut production, currently India produces around 5.5-6 lakh tonnes, Vietnam 4.5 lakh tonnes, Ivory Coast 5 lakh tonnes, East Africa 2.3 lakh tonnes, Brazil 1.5 lakh, Gunia Bissau 1.75 lakh tonnes and Nigeria, Benin, Indonesia & others producer around 75,000 tonnes each.

Consumption-wise, India is the largest consumer in the world followed by USA, which consumes around 1.7 lakh tonnes. “Even the consumption pattern has shifted from west to the east. Kernels consumption has increased immensely in Asian countries, with India ruling the top with 15 per cent year-on-year growth and China slowly seeing a growth,” according to Sampat of Samson Traders.

### Changing dynamics on the domestic front

On the domestic front as well, a lot has changed in the last few years. Sampat says, “In India, only three states were into cashew production and processing around 30 years ago, but now more than 10 states are producing cashew and processing units are spread across down south to north-eastern states.”

Kerala used to dominate the cashew industry with 60 per cent market share 10 years back, but its share now has reduced to half (Kerala's RCN production decreased from 1 lakh tonnes to 50,000 tonnes) with cashew farmers shifting to other cash crops like rubber and cocoa and high labour cost. With the de-growth happening in Kerala, other markets such as Karnataka, Andhra Pradesh and Odisha are emerging in RCN production. For instance, Karnataka has grown its market share from 5 per cent to 15 per cent in last five years and aiming for a 25-per cent market share.

Import of cashew nut - top 5 destination (Quantity in MT/Value in Crs.)						
Countries	2011-12		2012-13		2013-14	
	QTY	VALUE	QTY	VALUE	QTY	VALUE
Ivory Coast	181265	1058.45	268306	1367.11	209201	1058.09
Guinea Bissau	136384	1046.20	109627	764.90	114701	676.32
Tanzania	60011	442.18	145107	1052.26	111935	892.17
Benin	122301	791.37	154834	871.53	103979	608.16
Ghana	128361	787.62	83810	465.89	96343	524.83
Others	181504	1213.00	130681	810.00	135197	804.00
<b>Total</b>	<b>809825</b>	<b>5338.64</b>	<b>892365.23</b>	<b>5331.74</b>	<b>771356</b>	<b>4563.99</b>

Source: Cashew export promotion council of India

Global production	
Country	Quantity (in 1000MT)
India	600
Vietnam	450
IVC	500
East Africa	225
Brazil	150
Guinea Bissau	175
Nigeria, Benin, Indonesia & others	75 (each)



Many of the processing units in Kerala even moved to neighbouring Tamil Nadu. In processing, the earlier dominated Kollam in Kerala is giving way to new emerging markets such as Delhi, Andhra Pradesh, Maharashtra and Gujarat due to shift in processing units and huge increase in consumption in northern states.

Bola Rahul Kamath, President of Karnataka Cashew Manufacturers Association, says increasing domestic consumption and availability of cheap labour is forcing the processors to set up their units in the regions. Demand for cashew kernels is more in the north and western states such as Delhi and Gujarat, while cheap labour is available across regions like West Bengal, Nagaland, Mizoram, Nainital and Ahmedabad.

He further says, coastal regions have almost saturated and labour cost has become very expensive. For instance, a worker gets around ₹300-350 per day in

an organised sector like Mangalore or Kollam, whereas he gets around ₹150 in north-eastern states. In addition to it, statutory benefits such as maternity, gratuity, provident fund, etc are also not available in those states.

Even logistics and port-wise, there is a huge shift happening. Initially all the cashew exports and imports used to happen through Cochin Port till the Tuticorin Port took shape in the 1980s, and then entered the Mangalore Port that started with local crops but later started to play a major role in imports since 90s. Till few years back ports including Cochin Port, Tuticorin, Vizag and the New Mangalore Port used to be cashew hubs, but now ports like Mundra and Krishnapatnam are emerging to become the major player in the cashew industry backed by the flourishing production and processing units in and around the states.

Stating the current situation, Nair says, “The industry will move to more

conducive business environment and look for cheaper places in the future. Kerala having the disadvantage of an early start saw an early saturation and exorbitant labour costs, which gave way for other competitors like Odisha and Andhra Pradesh to offer at least 50 per cent cost advantage,” adding that, “My units are based out of Kollam, logically I should use Cochin Port, however I prefer Tuticorin Port as it is more cost effective and offers more business friendly environment.”

Currently, Cochin Port takes care of around 30 per cent of the trade, followed by Tuticorin Port (30 per cent), Vizag Port 15 per cent and Mangalore at 15 per cent, among others.

### Logistics Challenges

The logistics for the cashew industry revolves around two segments – the cost element and the service element (availability of container or shipping services from the port). As it’s a commodity-driven business, the industry is very sensitive about the pricing and it’s a major determinant.

Prabhu of Achal Industries says, “We face several challenges including longer transit time, congestion at ports, etc, when imports are concerned.”

“There are very few container lines operating from the importing sources to India, especially when we import from African countries. Also, there are no direct vessels calling as of now. Cargo pit stops across ports including Colombo and Singapore and gets struck in between due to congestion,” he adds.

“Uncertainty over the quality of raw cashew nuts” remains another



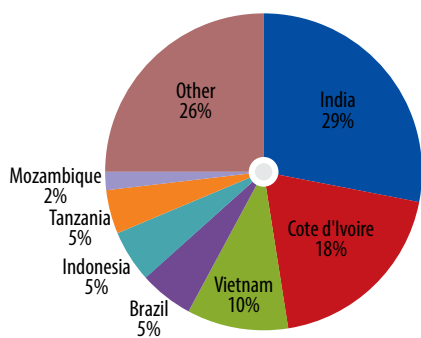


Figure 2.4: Countrywise % share of RCN production in 2013

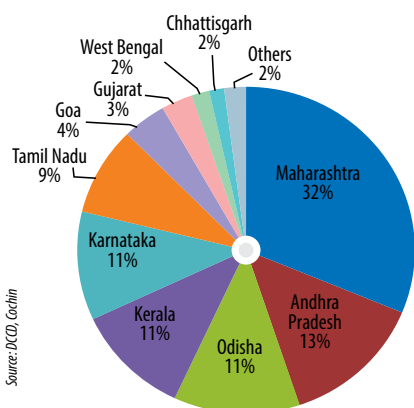


Figure 2.8: State-wise % share to the total RCN production in 2013

major challenge for many importers. Importers believe, it's difficult to control the quality of the product at the time of dispatch. It creates havoc when the goods are not dried and put in the container. Raw cashew nut is a perishable product, it demands an ideal transit time between 25-30 days. When it crosses beyond 35 days, the quality deteriorates. It is a major loss for an importer when the goods reach after 40 days.

“For instance, when RCN is loaded into the container at Port of Abidjan, Ivory Coast, and transported to India. Ships come via Suez Canal and goes through many climatic variations of heating and cooling. Even the ships do not reach on time. If the raw cashew nuts stay in the container for longer duration, it affects the quality of the kernel,” an industry insider said.

The principle liner companies who service the cashew trade from West Africa are Maersk, MSC, Safmarine & CMA CGM. “West African peak season will be monsoon season in India. During

Major cashew nut growing belts in India	
States	Region
Andhra Pradesh	Srikakulam, Visakhapatnam, East Godavari, West Godavari, Khammam, Vizianagaram
Chhattisgarh	Bastar Region, Raigarh
Goa	North and South Goa
Gujarat	Valsad
Jharkhand	East and West Singhbhum, Saraikela, Jamtara, Pakur, Dumka, Deoghar
Karnataka	Kolar, Uttar and Dakshina Kannada, Shimoga, Bidar, Udupi, Belgaum, Chikkaballapur
Kerala	Kasargod, Kannur, Malappuram, Kozhikode, Palakkad, Thiruvananthapuram
Maharashtra	Ratnagiri, Sindhudurg, Raigad, Kolhapur, Thane
Meghalaya	East Garo Hills, West Garo Hills
Pondicherry	Poducherry, Karaikal
Odisha	Dhenkhal, Cuttak, Nayagarh, Ganjam, Kendujhar, Koraput, Jaipur, Mayurbhanj, Khurda
Tamil Nadu	Cuddalore, Pudukkottai, Tiruchirappalli, Villupuram, Perambalur, Ariyalur, South Tripura
West Bengal	Midnapur (East and West), Purulia

monsoon, there bound to have certain issues with the terminals such as draft issue and congestion,” says a CMA CGM official.

The season for the import of raw cashew from West Africa is March to Sept. “To understand the global cashew industry, when the sun goes up the equator, the crop starts in the northern hemisphere in countries such as India, West Africa and Vietnam. When the sun comes down to the lower part, you will find crops in southern hemisphere, mainly in Indonesia, Brazil, and east African countries including Tanzania. Northern hemisphere crop constitutes about 70 per cent and during the time there is heavy congestion at the West African ports,” Nair said.

### Current Export/Import Scenario

At present, India imports around 8 lakh tonnes of raw cashew nuts every year from 25 countries, mostly from West African countries. It imports around 4 lakh tonnes from Ivory Coast, 2 lakh tonnes from Tanzania, 1 lakh tonne

each from Benin and Guinea Bissau. Though the country has been importing huge RCNs for many years now, it also recently started importing processed cashew nuts as well.

It processes about 13 lakh tonnes of RCN (taking both imports and domestic production) and gets 3.5 lakh tonnes of kernels (Processed output is only 23 per cent from RCN). India meets 50 to 60 per cent of the cashew required for processing through imports. After meeting its domestic consumption, remaining it exports, which is about 1.2 lakh tonnes of kernels to around 70 countries. In 2013-14, India's exports were at 113,620 tonnes, registering a 13 per cent growth over 100,105 tonnes done in the previous fiscal. It also exports approximately 8,000 metric tonnes of Cashewnut Shell liquid.

Compared to imports, the exports figure remains lesser due to the imbalance between stagnant production and high consumption rate, Kamath of KCMA says. He adds, “India's production remained stagnant due to several factors – expensive land prices here restrict farmers in buying agricultural land, challenge in getting cheap agricultural labour and farmers are now diverting to other cash crops such as rubber, vanilla and cocoa. Currently, the biggest challenge is to increase the RCN production in the country. This is something the industry alone cannot do, and it has to partner with the government, farmers, and other stakeholders to promote raw cashew nut cultivation.”

In order to drive the exports and imports, the industry needs a facelift. Unlike, the almond industry is seeing a huge growth. Between 2000 and 2012, almond production has gone up by 269 per cent, cultivated area by 161 per cent and prices are up by 266 per cent, all because of promotional and marketing activities. In order to change the dynamism of cashew, all stakeholders should come together to promote cashew. Industry insiders feel the industry is not seeing the expected growth due to lack of promotion of cashew in the country. Unlike almond which has many national brands, cashew does not have any national brand.

# Changing dynamics in the Indian cashew market

With the de-growth happening in cashew production in Kerala, both production and processing is now slowly moving to other states. Kerala, which used to dominate the cashew industry a decade back with 60 per cent share, now its share has reduced to half with farmers moving to other cash crops. At the same time other markets have emerged taking a big pie in the country's cashew market such as Karnataka, Andhra Pradesh and Odisha. On the sidelines of "Kaju Summit," **Bola Rahul Kamath, President of Karnataka Cashew Manufacturers Association** speaks to MG's **Itishree Samal** on the changing dynamics of the domestic and international cashew markets.

**Bola Rahul Kamath**  
President of Karnataka Cashew  
Manufacturers Association



**Q** Vietnam, for this year as well, retained its leading position as the largest exporter of raw cashew nuts globally. In cashew production and processing as well, other countries are aggressively gearing up to compete with India. Where is India positioned in global cashew industry?

**A** Currently, India is positioned as the largest producer of raw cashew nuts (RCN) globally with 5.5 lakh tonnes per annum, followed by Ivory Coast with 5 lakh tonnes and Vietnam with 4.50 lakh tonnes. However, India's raw cashew nut production has not picked up as it was expected in the last few years. The production remained stagnant at 5.5 lakh tonne for last 10-15 years. In contrast, other countries have aggressively grown in the global cashew market during the same period. For instance, Ivory Coast's RCN production has gone up from 1 lakh tonne to 5 lakh tonnes, while Vietnam increased its production from 1 lakh tonnes to 4 lakh tonnes.

In terms of processing, India tops the chart with 13 lakh tonnes of annual processing volume, while Vietnam processes around 10 lakh tonnes and Ivory Coast around 50,000 tonnes. And the 2.5 lakh tonne of annual kernel consumption makes it the largest consumer in the world, followed by USA which consumes 1.7 lakh tonnes. In terms of exports, Vietnam is the largest exporter of cashew kernel in the world.

**Q** Why does India, despite being the largest producer and processor

## of raw cashew nuts, lag behind Vietnam in terms of exports?

**A**The main issue with India is its stagnant RCN production in the last few years. What is happening now is that we want to produce more cashew nuts, but the Indian law doesn't allow the factory owners/processors to own agricultural land and grow cashew nuts. The processors are largely dependent on farmers. Even if they want, they cannot adopt modern mechanisation and technology and do organised farming, which in turn is affecting the overall production. In contrast, Vietnamese have mastered the art of mechanisation and are working faster than their Indian counterparts. Even the cashew research institutes in India do not work in tandem with the cashew manufacturing associations. Also, there are no single controlling authorities to take care of everything starting from research, production, processing to exports under one platform.

Other key factor is that India is the largest cashew kernel consumer of the world and consumes two-third of its processed kernels. Of the 13 lakh tonnes of RCN the country processes, it gets 3.5 lakh tonnes of cashew kernels and two-third of it is used for domestic consumption while rest about 1.1 lakh tonnes is exported. India is seeing a growth rate of around 15-20 per cent in cashew consumption. Even the broken variety is gaining momentum with rising demand from households as well as biscuit manufacturers and confectioners. Whereas, Vietnam doesn't have a domestic market and exports everything it produces. It exports around 2.5 lakh tonnes.

### Q What are the factors affecting the domestic cashew nut production? What are the major challenges the industry is facing?

**A**India remains stagnant on the production front due to several factors. That includes: first, the country's expensive land prices restrict farmers from getting good agricultural land and secondly the country is facing a tough challenge in getting cheap agricultural labour. Third, farmers are now getting diverted to other agricultural crops such as rubber, vanilla and other cash crops. The biggest challenge for India is to increase the RCN production. This is something the industry alone

## Major regions of cashew production state-wise:

### Karnataka:

Karkala, Udipi, north Kendra district

### Andhra Pradesh:

Palasa, Rajamundry, Vijayawada

### Odisha:

Ramba, Jaipur

### West Bengal:

Kantai

### Tamil Nadu:

Panrutti

### Kerala:

Kollam



cannot do, and it has to partner with the government, farmers, and other stakeholders to promote raw cashew nut cultivation.

### Q In terms of domestic cashew production, which are the top regions/states?

**A**Despite de-growth, Kerala still leads in the country in production and processing. Karnataka comes next followed by Tamil Nadu (many of the processing units in Kerala have moved to Tamil Nadu), Andhra Pradesh, Odisha and Maharashtra. Karnataka has grown from 5 per cent to 15 per cent in five years and aims at a 25 per cent share. At the same time, Kerala's production has decreased from 1 lakh tonnes to 50,000 tonnes, with Kollam's share reducing to 30 per cent in the Indian cashew market from its earlier 60 per cent. India has more than 1,000 importers/traders and 2,000 processing units.

### Q In an emerging trend, many new regions such as Delhi are now setting up processing units despite not having a production base. What's your take on that?

**A**Increasing domestic consumption in the area and availability of cheap labour are the major factors behind setting up the processing units. Demand for cashew kernels is more in the north and western part of the country such as Delhi and Gujarat, while cheap labour is available across regions like West Bengal, Nagaland, Mizoram, Nainital and Ahmedabad. Coastal regions are almost saturated. We are not getting cheap labour. For instance, a worker gets

around ₹300-350 per day in an organised sector like Mangalore, while the same labourer gets around ₹150 in north-eastern states. Additionally, no provision of statutory benefits such as maternity, gratuity, provident fund, makes the operating cost even cheaper.

### Q What is India's import volume and which are the major regions for its imports?


**A**India is the largest importer of raw cashew nuts (RCN) globally with around 8 lakh tonnes of imports. It imports around 4 lakh tonnes from Ivory Coast, Tanzania around 2 lakh tonnes, Benin around 1 lakh tonnes, Guinea Bissau around 1.5 lakh tonnes.

### Q Which are the ports involved in the cashew trade?

**A**Ports including Cochin Port, Tuticorin, Vizag and the New Mangalore Port are the cashew hubs. Currently, the Cochin Port alone takes care of more than 30 per cent of the trade, followed by Tuticorin (30 per cent), and Vizag and Mangalore at 15 per cent, among others. This apart other ports including Mundra and Krishnapatnam are emerging in cashew trade.

### Q Is the available port and transport infrastructure in the country offering a suitable environment for imports? What other obstacles the importers are facing?

**A**When it comes to imports, "uncertainty of the quality of RCN" remains a major challenge. It is very difficult to control the quality at the time of dispatch. Several challenges are involved in terms of logistics when RCNs are imported from African countries. We have very few container lines including Maersk and CMA CGM operating from the importing sources to India. As there are no direct vessel calling as of now, cargo sees pit stops across ports including Colombo and Singapore and gets stuck due to congestion.

Raw cashew nut is a perishable product and it demands ideal transit time of 25 days. When the transit time crosses beyond 35 days, the quality deteriorates. It's a loss for an importer when the goods reach after 40 days. Another challenge is the currency fluctuation. 



1

**Port of Singapore**

The Port of Singapore, the world's largest transshipment hub, handled a total of 32.63 million teu in 2013, 85 per cent of which was transhipped to another port of call, reveals PSA International, a terminal operator for Singapore. The port moved 2.78 million teu in terms of container throughput in January 2015, an increase of 3.3 per cent compared to 2.69 million teu in the same period of 2014. With an annual throughput of 33.87 million teu in 2014 the Port was ranked the world's second busiest container port, falling behind Shanghai port which registered throughput of 35.29 million teu. Being the top transshipment hub, Singapore is connected to 600 ports in 123 countries.



2

**Port of Shanghai**

As reported by *Yangtze Business Service*, the Port of Shanghai handled 15.27 million teu of transhipped cargo in 2013. It is currently the largest port in the world, having handled a whopping 33.62 million teu in 2013. In January this year, volumes handled in terms of container throughput increased by 5.3 per cent compared to the same month last year. The port handled 3.16 million teu in January, 160,000 teu more compared to January 2014. Last year, 35.29 million teu were handled at the Shanghai Port, which makes it the busiest container port in the world for five years in a row.

**Top 5 transshipment hubs**  
Ranked by volumes transhipped



3

**Port of Shenzhen**

The port handled 23.32 million teu in 2013, around half of which was transhipped to another port of call. Shenzhen is the second largest port city in the world and has become China's wealthiest region, reports *USA Today*.

In January 2015, Shenzhen Port reported cargo throughput of 18,685,800 tonnes, year-on-year growth of 29.12 per cent, and growth of 1.05 per cent over the previous month.



4

**Busan Port**

In 2013, Busan Port handled just below 9 million teu of transshipment cargo, reports the *Journal of Commerce*. In 2014, the port handled 18.678 million containers, the highest number in the history of the port.

Feeder network at Busan has enabled it to connect to ports in Russia, China and Japan, and the transshipment incentives the port provides enables it to attract larger volumes of cargo, reveal the Busan Port Authority.

In 2013, Hong Kong was one of the world's busiest container ports by handling 22.4 million teu. In 2014, just under 5 million teu of transhipped goods passed through the Port, according to *the Loadstar*.

The Port offers extensive facilities for repairing, maintaining and dry-docking all types of ships, says GovHK. Three floating dry docks are situated off the west coast of Tsing Yi Island.



5

**Port of Hong Kong**

Source: Sea News Turkey

# IF SUPPLY CHAIN IS YOUR BUSINESS, MARK THE EVENT OF THE YEAR.

## MAKE IN INDIA – UNLEASHING NEW OPPORTUNITIES

15<sup>TH</sup> APRIL, 2015 | NCPA, MUMBAI . STARTS FROM 8:30AM



The government's ambitious and comprehensive Make in India program touches all areas of business in India. The program's re-visioning of all sectors including transportation and manufacturing will unlock India's economic potential, accelerate growth and increase investment opportunities directly affecting the supply chain of every business in India. Moreover, policies simplifying the regulatory environment including the impending implementation of the GST, will result in numerous supply chain challenges and opportunities for doing business in India. The India Supply Chain 2015 Conference will be a forum for business and academic leaders to discuss these challenges and identify novel and innovative solutions and opportunities to these challenges.

### CONFERENCE TOPICS

- ▶ Infrastructure Requirements that Enable the Make in India Supply Chain
- ▶ Policy Reboot, Challenges of a New Policy Environment
- ▶ Market Entry-The View from outside India

KNOWLEDGE PARTNER: MCKINSEY & COMPANY

### Academic Conclave

14th April, NCPA, Mumbai. 2:00pm to 6:00pm

#### Supplying Talent for the Make in India Supply Chain

A major concern of supply chain managers in India is acquiring skilled supply chain talent to fill their needs to meet their firms supply chain needs today. In this first of its kind academic conclave in India we will provide a forum for frank discussion on how to supply chain academics and industry can fulfil these burgeoning talent needs.



### SPEAKERS (in random, and just to name a few)

Ajay Chopra, Saud Bahwan Group, Oman.  
Aniruddha Lahiri, Kolkata, India.\*  
Balram A., IIM Calcutta.\*  
Bharat Thakker, Mumbai.  
Chandra Mohan Gupta, Coca Cola.  
David McLeod, Learn Logistics, UK.  
Deepak Tiwari, APL Logistics.  
Edward Sweeney, Aston University, UK.  
Elias Bardawil, BTG Consultancy, UAE.\*  
Ernst Schmied, CVI, Austria.\*  
Ewan French, BarloWorld.\*  
Jayanta Chatterjee, Castrol BP.\*  
John Saldanha, West Virginia University, USA.  
Keiichi Higuchi, Japan.  
Kumar Kandaswami, Deloitte Touché  
Lalit Panda, Versanto, USA.

LoverajTakru, UPES, India.  
Mahesh Calavai, Target Corp., USA.  
Manohar Raghavan, 3M, Dubai.  
Mark Khambatta, Singapore.  
Narayan Rangaraj, IIT Bombay, India.  
Neeraj Anand, UPES, India.  
Neil Basu, SCM Programs, India.  
Nikhil Kush, DuPont.  
P Raychaudhuri, SAIL.  
Pradeep Banerjee, Unilever.\*  
Pradyot Sinha, Philips.\*  
RaghunathMedge, Dabbawallahs.  
Rajeev Chadha, JDA.  
Rajesh Achanta, Procter & Gamble.  
Rajesh Kaushik, Baxter.  
Rajiv Misra, XLRI, India.

Ram Menen, Luxembourg.  
Ranen Nag, Kolkata, India.  
RavindMithe, KPMG.  
Sanjay Sharma, NITIE.  
Soral Mukherjee, IIM A, Ahmedabad.  
Shantanu Bhadkamkar, ATC Group, India.  
Srinivasan Sarangapani, Timken.  
Stephan Brady, USA.  
Subrata Sen, Philips.\*  
Sumit Dutta, McKinsey & Company.  
SuнилDabral, Schaffer.  
Suresh Kotak, Kotak & Co.  
T Venketram, Kellogg's.  
TAS Vijayaraghavan, XLRI.  
VikeshWallia, The Times Of India Group.

\*Invited

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**COME TO A RARE  
CONFERENCE EXPERIENCE.**

# Performance marred by inefficiencies

The Kolkata Port authorities can no longer be indifferent to the dredging problem and infrastructural deficiencies of the port if they want the port volumes to grow

Ritu Gupta

**A**geing infrastructure with limited water depth and the poor quality of services have restricted the progress of Kolkata Port. These are the findings of a study by the Associated Chambers of Commerce of India (Assocham) and the Institute of Chartered Accountants of India. According to the study, the depth at Kolkata Port needs to be increased to 14 metres to facilitate bigger ships. "The draft in Kolkata Port is highly inadequate for dealing with bigger ships," it said. Indeed, the port is dogged by poor hinterland connection together with certain other challenges like old and inefficient cargo-handling systems, rigid institutional framework and high tariffs. The study said there is also a need to get around

red-tapism and increase the pace of dredging which has been inadequate. Lack of business attitude, along with overstaffing, lack of capacity and lack of extension possibilities are the other hurdles being faced by the Kolkata Port. Ironically, these drawbacks exist despite the strategic importance of Kolkata Port. "The port is one of India's most significant ports with a vast hinterland comprising eastern India that includes West Bengal, Bihar, Jharkhand, Uttar Pradesh, Madhya Pradesh, Assam, north-eastern states and two neighbouring countries – Nepal and Bhutan," said D S Rawat,

Assocham's national general secretary. Furthermore, with the proposed New Silk Route gaining momentum together with the BCIM (Bangladesh-China-India-Myanmar) corridor, Kolkata is the nearest Indian port that can have a direct road link with China.

Industry players aver that urgent measures need to be taken to revive one of the oldest riverine ports in the country constructed by the British East India Company. The port comprises two docks – Kolkata Dock Complex and the Haldia Dock System which are under the administrative control of the Kolkata Port Trust. The navigation channel located in the Hooghly river accommodates sea-going vessels with 200 GRT with pilotage assistance cruising upstream almost 145 km from Sagar Islands located in Hooghly estuary. The navigation channel, however, experiences high rates of sedimentation (being a riverine port). There is also the existence of numerous sand bars and several sharp bends from the sea. Kolkata Port's current annual maintenance dredging load was above 20 million cubic metres, a report has noted. Because of the sedimentation and other problems, the operating costs have increased by 30 per cent in the last few years, allege the Association of Shipping Interests in Calcutta (ASIC). "A bulk

Total sediment transport for three dredging seasons (in million cubic metres - mcm)			
Zone number	Season-I	Season-II	Season-III
1	113.79	222.12	589.43
2	53.98	137.32	364.82
3	0.00	0.00	0.00
4	0.00	0.00	0.00
5	179.16	7,752.38	9,475.02
6	385.54	2,739.74	5,538.81
7	1,524.08	15,237.93	18,171.51
8	27.11	3,547.33	5,150.14
9	108.70	0.00	0.00
10	58.06	635.56	344.74
11	5.86	653.07	359.91
12	0.00	0.00	0.00
13	5.24	0.00	0.00
14	21.06	33.06	38.47
15	41.91	0.00	0.00
16	179.00	184.33	270.52
17	140.52	153.00	129.07
18	45.70	16.58	62.41
19	140.81	71.60	85.28
20	67.51	71.73	92.84
21	374.51	92.17	110.53
22	0.00	0.00	0.00

Source: Dredging maintenance plan for Kolkata Port

carrier requires a draft of one centimetre for 50 tonne of cargo it carries. With the average river draft falling over the last few years, ships are now not able to carry cargo at full capacity. For instance, a 50,000-tonnes ship carries around 18,000-20,000 tonnes of cargo to enter the channel," says an official of ASIC. As a result, the frequency of trips have increased to deliver the entire cargo while turn-around time for vessels has more than doubled. Another fall-out of the situation has been that the number of feeder and container vessels had increased significantly, adding to congestion at lock gates. As against this, Vizag as a sea-port has deeper draft and a turn-around time of 24 hours, claim members of ASIC. According to the industry players, owing to the situation, many shipping companies could now divert traffic to Vizag, from where cargo would reach Bengal via rail or road. Paradip, which is the nearest port to Kolkata, has already benefitted from the situation in some ways the

## Insights from a study to improve Kolkata Port operations

The Kolkata Port Authorities should take serious look at the findings of a study 'Dredging maintenance plan for the Kolkata port, India' – one of the handful studies done on the Hooghly river dynamics and its associated physical oceanographic characteristics. The study by researchers from the Department of Ocean Engineering and Naval Architecture, Indian Institute of Technology, Kharagpur, and the National Centre for Sustainable Coastal Management, Chennai, reports on a systematic procedure and maintenance plan for conducting dredging activity at the Kolkata Port. The study says that DCI performs maintenance dredging for the Kolkata Port every six months and disposes the dredged sediments at a rate of 350 million cubic metres per annum during the dredging season. DCI performs the dredging task to provide draft of 9 m required by the ships, but there is no action plan by DCI for areas experiencing high sedimentation rates even after the maintenance dredging task is completed. Therefore, the dredging work needs to be evaluated based on a sound scientific rationale.

The study investigated the sedimentation rate throughout the navigation channel, identifying zones of high sedimentation rate. The behavioural pattern of tides and currents was also analysed using a state-of-the-art model, and wave conditions were also simulated. Based on the intensity of sedimentation, the study proposes a maintenance plan for three dredging seasons. The study shows that the estuarine environment near Sagar Islands, the navigation channel entrance, experiences the highest rate of sedimentation, which requires priority and action for maintenance dredging during all seasons. The maintenance plan also reveals that the region near the entry to Haldia Dock also requires dredging during all seasons. The overall sedimentation rates are higher during season-III for most of the zones in the navigation channel. "We believe that this work can benefit the port authorities to help plan the priority areas for maintenance dredging. On the basis of this scientific rationale and seasonal dredging maintenance procedure, it is anticipated that huge investments involved in the maintenance dredging of this channel can be minimised," the researchers said.

traffic handling at Paradip showed a quantum jump of 42.83 per cent in 2013 compared to 2012, whereas it was 4.84 per cent at Kolkata.

It is now felt that some alternatives must be found and there could be immediate implementation of the long-pending river regulatory measures, developing new cargo handling facilities either at Sagar Island or any other suitable location, or looking for new dredging contractor as the performance of the state-owned Dredging Corporation of India (DCI) leaves much to be desired. The Hooghly operation accounts for the DCI's bulk of revenue earning. According to the industry players, the Kolkata Port Trust should urge the Union shipping ministry to allow international or private dredgers to work on the channel if DCI is not able to deploy adequate dredgers at Haldia. For instance, Ham Dredging of Holland had worked in the channel in the late 1990's. A PIL has also been filed in the Calcutta High Court which has expressed concern

over the neglect of the Kolkata and Haldia ports and sought a directive to carry out capital dredging to save them. The petition, filed by environmentalist Subhas Datta, points out that since 1982 no capital dredging has been undertaken and the improper and unscientific maintenance dredging carried out at present is affecting navigability along the Hooghly river as well as damaging the biodiversity and marine lives.

In the midst of this mayhem, the Union ministry for shipping, highways and road transport has offered ₹12,000 crore for construction of a new port at Sagar Islands to increase the cargo handling capacity of West Bengal and an additional ₹3,350 crore has been sanctioned for the development of the port sector in the state. Analysts aver that the government should encourage public-private partnership (PPP) for the port's development and should also induct international port infrastructure development consultants to improve the port's situation. [www](#)

**T**he ships designed to carry freight stowed in large metal containers, transport much of the world's seaborne cargo, including manufactured goods and, increasingly, farm products. Their size already is straining the resources at some port facilities and has contributed to traffic snarls at ports along the US west coast.

Since the economic downturn, shipping lines have sought to stay competitive by running larger, more fuel-efficient container ships, reducing their cost per container, according to Noel Hacegaba, acting Deputy Director of the Port of Long Beach, California.

Today, the biggest container ships can carry 18,000 teu – the industry's capacity benchmark – but Dr Hacegaba said industry watchers expected ships as large as 22,000 teu to come into service

by 2018, and 24,000-teu vessels are on the drawing board. The larger ships will further test the capacity of ports and canals and the skill of their captains and crews.

“There is a worldwide shortage of qualified seamen to command these vessels,” said Andrew Kinsey, a risk consultant at insurer Allianz's Global Corporate & Specialty unit and a retired ship's captain. Kinsey added that human error was a factor in most shipping accidents.

Though there have been fewer such accidents in recent years, their cost has been rising. Ship groundings topped the roster of insured losses from 2009 to 2013, putting them ahead of fire, plane crashes and earthquakes, according to Allianz.

“Cost-cutting measures such as

reducing crew numbers, overworking and lack of training” had exacerbated the risks, said Jonathan Moss, a partner at law firm DWF in London.

A big contributor to the recent losses was the \$2-billion wreck and subsequent efforts to salvage the cruise ship *Costa Concordia*, which ran aground in Italian waters in 2012. The prospect of a similar incident involving a container vessel, which might be loaded up with 18,000 containers, “is one of our nightmares at the moment,” said Rahul Khanna, another Allianz marine risk consultant.

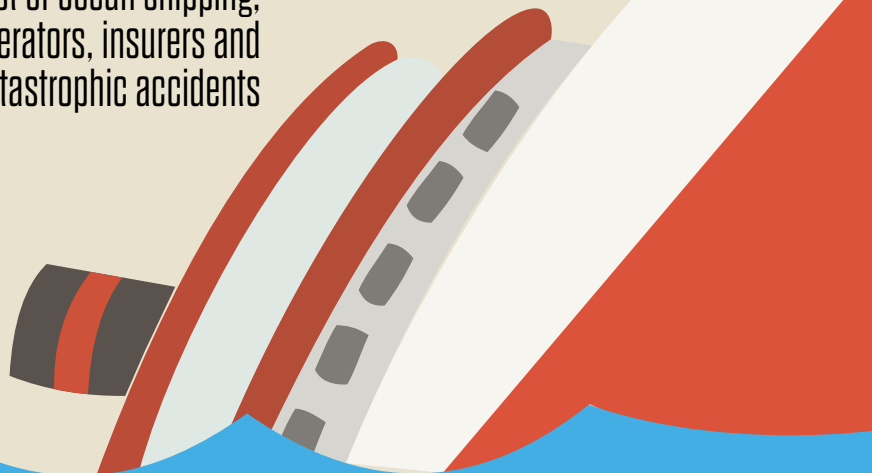
He cited estimates by salvage operators that it could take two years just to remove the containers from such a large vessel, assuming it were possible at all. Even relatively small container ships can cause problems. New Zealand's environmental court is considering an application by the owner and insurer of *MV Rena*, a container ship of less than 4000 teu, to abandon part of the wrecked vessel on the country's Astrolabe Reef, where it ran aground in 2011.

The vessel lost 900 containers and spilt 200 tonnes of heavy fuel oil into the sea, in what was described as the country's biggest environmental disaster. Investigators attributed the accident to human error, including failure to follow standard practices for voyage planning, watchkeeping and controlling the ship. The ship's captain and navigator were jailed for several months.

With bigger ships, the risks are magnified. “The bigger the ship, the

# Mega Ships Mega Risks

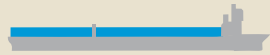
The big container ships that ply the world's trade routes are growing ever larger, holding down the cost of ocean shipping, but also raising concerns among vessel operators, insurers and regulators about the potential for catastrophic accidents





## GROWTH OF CONTAINER SHIP SIZE AND INSURED VESSEL VALUES

**Fully cellular (1970 –)** 1,000 – 2,500 teu 215x20x10m – **\$8m to \$12m**



**Panamax (1980 –)** 3,000 – 3,400 teu 250x32x12.5m – **\$62m**



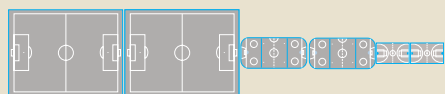
**Post Panamax (1988)** 4,000 – 5,000 teu 285x40x13m – **\$49m**



**Post Panamax Plus (2000)** 6,000 – 8,000 teu 300x43x14.5m – **\$98m**



**Triple E (2013)** 18,000 teu 400x59x15.5m – **\$140m**



The **Triple E** is equivalent to the length of 2 football fields, 2 ice hockey rinks and 2 basketball courts combined

Adapted with permission from  
The Geography of Transport  
Systems, Jean-Paul Rodrigue

Insured vessel values: AGCS  
Insured vessel values are  
approximate. Based on value  
on entering the fleet.

Allow +/- 10% variance

Cargo values not included

bigger the challenge,” said Nick Brown at Lloyds Register.

Losses from the mysterious sinking of *MOL Comfort* in 2013 imply a cost of more than \$2 billion for the similar loss of a new-generation container vessel, according to reinsurance adviser Willis Re. *The Comfort*, which was half full, went down off the coast of Yemen after it split in half. “A new ship, five years old, breaking in two, and not in severe sea states, raises concerns,” said Sean Dalton, at global reinsurer Munich Re. Insured losses from the *Comfort* disaster totalled \$523 million. There is an element of uncertainty about how the new generation of container vessels will behave at sea. A phenomenon called

“springing,” a vibration of the hull caused by waves becomes more serious as ships get longer, increasing metal fatigue. Another problem is “whipping”, which is caused by waves acting on the hull much like a finger plucking a violin string.

But losses from a huge ship sinking could be dwarfed by the impact of a disabled ship blocking a major port or canal. A collision of two ships delayed traffic through the Suez Canal last September. Though the blockage was rapidly cleared, it illustrated what could happen. With bigger ships, which offer less margin for error, the impact could have been much worse. “I would compare it to driving a giant SUV like a Ford Explorer or Suburban versus driving a midsize car. It is probably OK on the highway, but on a small, local road, with two cars passing, size becomes a challenge,” Dalton said.

### Shipping accidents and losses

Shipping losses continued their downward trend with 94 losses reported


worldwide in 2013, coming in below 100 for only the second time in 12 years, according to Allianz Global Corporate & Specialty SE’s (AGCS) second annual Safety and Shipping Review 2014. Losses declined by 20 per cent from 2012 when there were 117 reported losses. The 2013 accident year also represents a significant improvement on the previous 10-year loss average with total worldwide shipping losses declining 45 per cent since 2003.

### Asia saw highest number of marine losses and continues to be an area of focus

According to the report, more than a third of 2013’s total losses were concentrated in two maritime regions. As in 2012, the South China, Indo-China, Indonesia and the Philippines region saw the highest number of losses (18 ships), closely followed by the seas around Japan, Korea and North China (17 ships).

“We have to ask how some Asian ship operators measure safety and quality, particularly when speaking about domestic trade shipping in South East Asia,” said Captain Jarek Klimczak, Senior Marine Risk Consultant at AGCS. “The understanding of quality and standards can sometimes appear 50 years behind Europe – maybe even more.”

Around the world, more than a third of the vessels lost were cargo ships with fishery and bulk carriers the only other type of vessels to record double-digit losses. The total loss of two bulk carriers in Asian waters in 2013, *Harita Bauxite* and *Trans Summer*, highlighted the importance of proper cargo handling and stowage of bulk cargoes. AGCS experts believe high moisture content and subsequent liquidisation, leading to free flowing instabilisation of the cargo to be the primary cause of the accidents.

The most common cause of losses in the past year was foundering, often driven by heavy weather, accounting for almost 75 per cent of all losses, which was a significant increase from both 2012 (47 per cent) and the previous 10-year average (44 per cent). 

Source: *The Australian Business Review*

# “INDIA FIRST” SHOULD BE THE MANTRA!

## Q Tell us about the current global trends in ship designing?

**A** The large commercial ships market is still plagued by oversupply. The Baltic Dry Index is at historic low and the trend is expected to continue for some more time. This directly hits the shipyards and design houses. The industry is skeptical about the sustainability of the recent reduction in fuel oil prices. The low fuel prices therefore could not trigger a renewed interest in new building.

Every passing year brings in new challenges for a design house. The regulatory environment is tightening its noose on shipping through stricter requirements on structural design, safety, energy efficiency, emissions and so on.

Eco-friendly vessels are projected to meet the increased demand of the International maritime Organisation (IMO) which has strengthened regulations on CO<sub>2</sub> and other environmental issues. With the emission control norms in force, there is increased attention towards usage of cleaner fuels like LNG, Ethanol etc. The equipment development and regulatory aspects for these fuel applications are at their nascent stages creating a lot of uncertainty for a designer.

In the recent years, we also see an increasing involvement of consultancies controlled by major Classification Societies in the concept, contract and basic design of ships and offshore structures. This is indeed worrisome. Even with the strictest controls on data security in place, there is a possibility

of spillage of the third party intellectual properties held in Classification society libraries on to the design boards of such consultancy organisations.

## Q Where does India stand in ship designing in the global scenario?

**A** If we ignore a few numbers of cases, the design firms in India work only on design detailing and production design. The concept and basic designs are supplied by firms mostly in Europe. The knowhow and technology is never transferred, which is a major cause of concern, since this arrangement ensures that our yards are dependent on outside help forever.

Shipowners and shipbuilders depend on talent and technology of foreign firms only to get second-grade designs. This is embarrassing for a country that has successfully sent a space craft to Mars.

## Q Where do we lack in terms of skills and expertise for ship

## designing?

**A** We do have the best of schools and intelligent people. We also see a lot of Indians working on advanced marine and offshore designs outside India.

Based on our experience, we feel, what we lack are:

- Vision
- Management
- Commitment
- Support from ship owners
- Urge to indigenise (to design and ‘Make in India’)
- Investment in R&D; and above all
- Patriotism

We do have problems in retaining the workforce, but this can be resolved to some extent through continuous training. Training is an expensive exercise and is not sustainable for a design house to

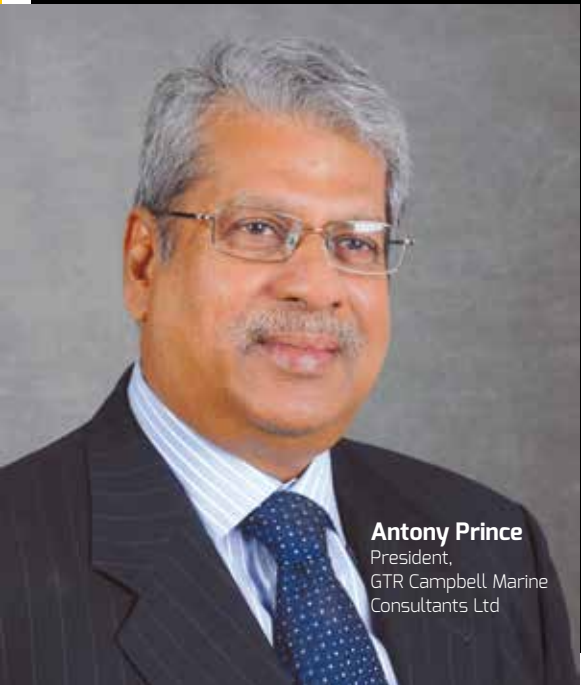
## Shipbuilding market – 2030

Emerging markets will determine the ship building landscape in the coming 20 years with more number of deliveries forecast to come from Vietnam, Brazil, India, China and Philippines.

Brazil and India will witness the largest percentage increase in terms of deliveries, while Vietnam will gain the largest in volume terms. However, their individual deliveries will remain significantly smaller when compared to China or South Korea in 2030.

Japan and South Korea are forecast to lose their market share. Market share of South Korea will fall from 34 per cent in 2010 to around 22 per cent in 2030. Japan’s share will fall from 21 per cent to 9-10 per cent during the same period.

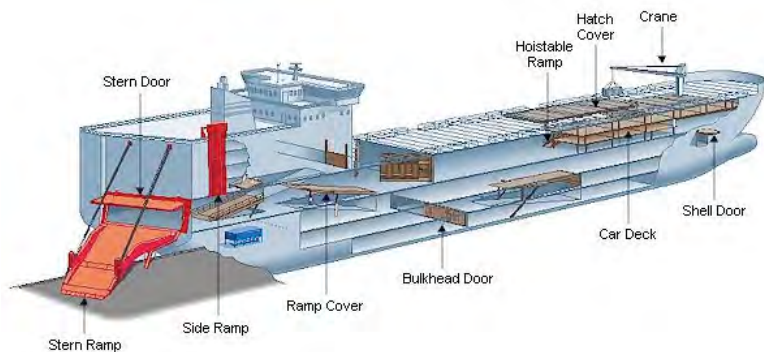
Source: *Global Marine Trends 2030 – Lloyds Register*



**Antony Prince**  
President,  
GTR Campbell Marine  
Consultants Ltd

Ship owners and shipbuilders depend on talent and technology of foreign firms only to get second grade designs. This is embarrassing for a country that has successfully sent a space craft to Mars, emphasises **Antony Prince**, President, GTR Campbell Marine Consultants Ltd

**Omer Ahmed**



fund alone. This should rather be seen as a national cause and the government should support those organisations which are investing in converting fresh graduates to professionals.

If the above issues are solved it shall definitely boost the confidence levels of the Indian designers and stop them from selling their master brains to other countries. We should also aim at giving confidence to the smarter young generation in taking up ship design as a career with good prospects.

**Q** What is the scenario of commercial ship designing in India?

**A** Ship design has never been taken seriously in India. The idea that

‘profitability of a project is decided by its design’ is never understood for some reason. Ship design houses in India have to fight against a multitude of odds like attrition, software license costs, high training requirements, and so on before competing with foreign design houses, many of which enjoy government sops in their countries.

Even Indian design houses that have proven their capability in practice stand at a disadvantage while competing for public sector projects because of contractual requirements regarding prior experience. Technical evaluation should be based on capability. We have to patronise Indian design houses – “India first” should be the mantra!

We have clear policy documents for promoting ship design and building with recommendations for supportive government policies, attracting foreign investments, skill development and retention, encouraging research & development and so on. What we lack is implementation. We need a doer rather than a thinker. We hope the government understands these concerns and supports ship design in India

We should not allow this situation to continue. We have more than enough domestic demand to sustain merchant shipbuilding, So there is a need to encourage design in India and provide fiscal benefits as given to R&D investments as in the other sectors and other nations.

**Q** Which are the class/type of ships being designed in India?

**A** India has come a long way in designing of warships and defense auxiliary vessels. In the commercial side, majority of the vessels which are designed completely in India are small; such as tugs, offshore supply vessels, crew boats etc. There however exists a selected few, who are capable of working on more complicated projects.

As India has internal requirements for all types of commercial vessels starting from tugs and trawlers to LNG carriers, we have to accelerate our development in this sector. [img](#)

**A** cold chain is an uninterrupted series of storage and distribution activities which maintains a given temperature range. It helps in extending the shelf life, period of marketing, avoiding over capacity, reducing transport bottlenecks during peak period of production and maintenance of quality of produce.

During the past three years, the integrated cold chain industry in our country – a combination of surface storage and refrigerated transport – has been growing at a CAGR of 20 per cent. The cold chain market in India is forecast to reach ₹624 billion by 2017.

Cold chain distribution is still at a very nascent stage in India and is far behind when compared to global standards for cargo movement. Currently reefer transport business in India is estimated at ₹10-12 billion which includes reefer transportation demand for both exports and domestic. Annually about 105 million mt of perishable produce is transported across India, of which only 4 million mt is transported via reefers. Supported by initiatives implemented by the Indian government (51 per cent FDI) and growing consumption of processed foods, cold chain logistics is expected to witness huge growth in the coming years.

**Components of cold chain**

- **Temperature controlled warehousing:** Cold chain can never be complete without being able to warehouse the merchandise at a desired temperature.
- **Refrigerated transport:** This forms the backbone of any cold chain system and provides mobility to the commodities.
- **Integrated last mile distribution:** Cold chain cannot succeed unless it is duly supported by an efficient temperature controlled last mile distribution network.

**Major challenges being faced by cold chain industry**

A successful cold chain can only be run by ensuring that the entire mechanism is leak proof, in doing so the entire chain proves to be a highly energy intensive sector gurgling up large volumes of fuel and electricity in storing as well as in moving the commodity.

A necessary evil of the cold chain is the fuel based cooling being used in reefer units to maintain the requisite temperature while on the go. This not only increases fuel consumption but also releases a huge carbon footprint which could take decades for the earth to minus out. An average reefer truck could emit up to 72 gm of CO<sub>2</sub> per Km. Another major strain is the cost involved in maintaining the efficiency of the cold chain. Speaking in monetary terms, for every hour that a reefer truck runs it spends approximately ₹200 on maintenance (Pluss Polymers Pvt Ltd, 2014). These expenses incurred by the companies executing the cold chain are eventually passed on to the end user/consumer. To make the cold

chain cost-effective and ecofriendly a number of innovative technologies have been evolved, such as the phase change materials.

**What are phase change materials?**

Phase change materials as the name suggests are materials that exhibit the ability to store high amount of hot/cold energy during its phase transition from solid phase to liquid phase or vice versa at a designed temperature. In a way phase change materials (PCMs) are like thermal batteries which provide precise temperature control over a certain period of time without the active engagement of a cooling mechanism.

Phase change materials can be incorporated in the cold chain

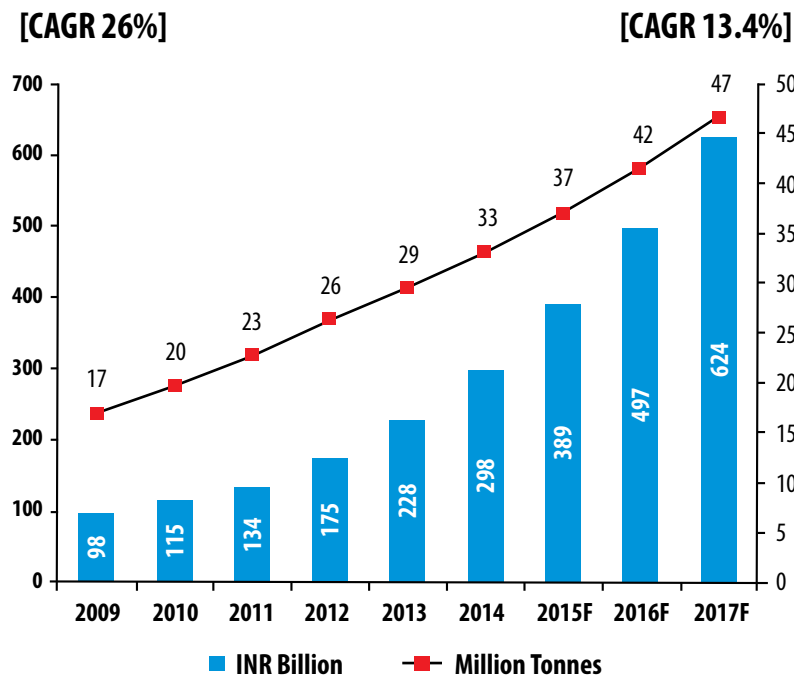
# Phase Change Materials – Innovation for reefer trucks

Phase change materials have emerged as a cost-effective and eco-friendly temperature controlling solution for cold chain operators, drastically reducing their operational and maintenance costs

**Vishnu Sasidharan**  
 Manager – Business Development (PCM)  
 Pluss Polymers Pvt Ltd  
 vishnu@pluss.co.in



## Cold chain industry in India: Growth status



Source: National Summit on Cold Chain: ASSOCHAM & Tech Sci Research

Parameters	Without PCM	With PCM
Cost of truck and the insulated container	8.5 Lakhs	8.5 Lakhs
Cost of the refrigeration equipment including Phase Change Materials & charging unit for PCM-based truck	NIL	3.75 Lakhs
Cost of refrigeration unit for conventional Truck	2.5 Lakhs	NIL
<b>Total Capital cost</b>	<b>11 Lakhs</b>	<b>12.25 Lakhs</b>
Diesel consumption for the vehicle	4 litres per hour	2.5 litres per hour
Cost of Electricity	NIL	₹6 per unit (10 units per day)
<b>Total running cost</b>	<b>10 lakhs / annum</b>	<b>6.5 lakhs / annum</b>
Investment in capital cost of PCM-based reefer truck over conventional truck	1.25 lakhs (one time investment)	
Savings per annum using PCM system	3.5 lakhs (per annum)	

Table 1: Cost-benefit analysis between a PCM based reefer truck and conventional truck.



to maintain sustained temperature costeffectively and with lesser fuel consumption at various stages in warehousing, transport and last mile distribution.

### Application of PCMs in reefer vehicles

Reefer units are commonly of 2 types:

- 1) **Long haul units:** Those that use reefer trucks in transportation for beyond 24 hours. These units deliver the perishables for beyond a small geographical territory. These reefer units can make use of PCMs in the form of “Active Eutectic Plates.” Eutectic plates filled with PCMs can provide back-up upto 24 hours and more. In this the plates are mounted inside the container and provide active cooling during transit by partial application of the engine block of the truck. Thus, significantly reducing fuel consumption.
- 2) **Short haul units:** Last mile distribution forms the last rung of any cold chain system. For an efficient cold chain the last mile distribution network should be highly efficient. PCMs can be integrated directly in the form of “Tabs” charged overnight to passively maintain temperature control during last mile delivery. Another Plug’n’Chill technology developed by TESSOL systems using save® PCMs is used for last mile delivery. In this system a nose mount unit charges the PCMs overnight and the PCM panels maintain precise temperature control while the reefer is on the move. Temperature excursion can be checked for over 12 hours with this kind of technology.

Table 1 makes it amply clear that usage of PCMs can help tackle all three issues plaguing the cold chain sector- fuel consumption, carbon emission and financial strain. Unlike in India, the west has been fast in picking up this innovative energy channelising material which can prove to be helpful in saving millions of gallons of fuel per year. The technology offers a win-win proposition for both the producers of the goods and the units providing cold chain movement. [img](#)

**Q** What are the implications of 2015 ECA regulations? Which global routes are impacted by these guidelines?

**A** As of January 1, 2015, all vessels sailing in the Emission Control Areas of the Baltic Sea, the North Sea, English Channel, the waters off the US and Canadian coastlines and the US Caribbean Sea are now required to use fuel with a maximum sulphur content of just 0.1 per cent, a significant reduction from the current ECA limit of 1 per cent. The ECAs span 200 nautical miles from the respective coastlines.

In general, there are three potential compliance options for vessels operating in ECAs in the short to medium term: the use of scrubbing technologies, converting to use of LNG or burning Marine Gas Oil (MGO), a 0.1 per cent sulphur fuel. There has been some uptake of scrubbers but to date this has been limited to operators of ships sailing predominantly in ECAs such as ferries and cruise ships due to the high costs of retrofitting vessels. LNG ticks the box in terms of emissions requirements but the distribution infrastructure is still in the early stages of development. Therefore, we believe that using 0.1 per cent sulphur fuel is currently the most practical option.

To avoid adverse impacts on operational performance, downtime and engine wear, operators need to proactively address fuel and lubrication changes in tandem. In particular, commonly used products with a higher base number (BN) such as 70BN and 100BN may compromise engine performance if used with 0.1 per cent sulphur fuel on a prolonged basis. This is because BN is a relative measure of alkalinity and, as sulphur in fuel burns to produce acidic species, the less sulphur there is in the fuel, the lower the level of alkalinity that is required in a lubricant. Yet, with crews stretched and skills gaps on-board, the temptation to stay with an existing lubricant could be high. This is why lubricant manufacturers need to be hands-on in helping operators and their crews to manage the transition to a lower BN lubricant. Our recommendation for the majority of vessels using 0.1 per cent sulphur fuel is a 40BN lubricant with higher levels of dispersancy and detergency additives.

**Q** As we speak, what is the preparedness of shipowners?



**Gianluca Marucci**  
Global Technical Services  
Director, Castrol

**Compliance involves a long and careful understanding by both OEMs and lubricant manufacturers. So, how is the learning curve?**

**A** Prior to the introduction of the new rules, Castrol was in discussion with many operators as they planned their switching strategies to meet ECA requirements. This included working closely with customers to help crew better understand the implications for lubricant application in these scenarios and how to effectively switch lubricants. Now that the legislation is in force, we will continue to support operators as engineers on-board vessels get used to pairing lubricants with ultra-low sulphur fuels when necessary and ensuring that engines continue to perform reliably and efficiently.

Ultimately, responding to the changes in ECA sulphur limits is an ongoing learning curve for the industry as a whole spanning operational, financial and legal aspects. Within this, lubricant manufacturers need to continue collaborating with OEMs and operators to gain a deeper understanding of how lubricants are performing with 0.1 per cent sulphur fuels as their use becomes more widespread. Castrol has been looking at different technologies for use with 0.1 per cent sulphur fuels as well as with LNG, and will be monitoring in-

service performance with customers and OEMs regularly.

**Q** How significant are these guidelines for a lubricant manufacturer like you? And how do you adopt your technical/production processes?

**A** Over the course of the last few years, Castrol has invested significantly in exploring innovations to support the move towards using cleaner fuels.

Based on this, Castrol's solution is Cyltech 40SX for use with fuels that have a sulphur content of below 1.5 per cent, which also extends to fuels at <0.1 per cent sulphur. The major OEM's are very familiar with the performance of Cyltech 40SX and they support our recommendation for this product for the vast majority of vessels that operate in ECA's using <0.1 per cent Sulphur fuel.

As marine gas oil (MGO) and LNG have not been widely used to date, we will continue to work with customers and OEMs over the course of this year and going forward, to build up further in-field experience and understanding of how different lubricants perform when used with these and similar fuels for prolonged periods.

Our team of skilled engineers provide

# INCESSANT INNOVATION MEETS EVOLVING MARKET NEEDS

“Environmental regulations, engine designs and market forces will continue to evolve. Castrol continues to invest in innovation to anticipate future trends and develop lubricant solutions that will help our customers to navigate change effectively,” says **Gianluca Marucci**, Global Technical Services Director, Castrol, in an interview with Maritime Gateway

Omer Ahmed

support ranging from information and advice on relevant regulatory changes, advising on lubricant selection and application, using unique used oil analysis techniques to optimise lubricant feed rates to reduce costs and limit engine wear through to visiting vessels in person to trouble-shoot any issues. As operators manage the transition to using more 0.1 per cent sulphur fuels, the support of our technical services team will be essential to ensuring that operations run as smoothly as possible.

**Q** As part of the total transportation industry that you serve, what is the significance of maritime sector (Shipping)?

**A** Marine is a significant sector for Castrol, which it has been committed to for over 30 years. The range of industries we operate in gives us important insight, which can be transferred into other sectors. For example, the work of our Energy business has brought us a great deal of experience in helping customers to adapt to environmental regulations which can be transferred and developed into our marine offering.

Advances in engine technology, fuel-efficient sailing and emission reductions are an important part of industry

progression, but they have raised challenges in terms of maintaining engine performance. Selecting and applying the right marine lubricant can have major implications on vessels' operational performance, cost management and wider service reliability.

**Q** Castrol and BP marine brands have been consolidated. What's the strategy behind this consolidation and how is it benefiting businesses?

**A** Consolidating BP and Castrol marine lubricants under the Castrol brand provides greater simplicity and efficiency for the customer by creating a single product and service portfolio. BP as part of Castrol provides the same best-in-class offering, global reach and technical support so the main change is simply the name under which the products and services are supplied.

The Castrol brand is already recognised by marine customers in over 820 ports and in 82 countries worldwide and has built a reputation over 100 years that is synonymous with first-class service and innovation.

**Q** As the regulations continue to evolve, how is Castrol positioning its products to help customers in compliance?

**A** The focus on emissions reduction has influenced our offering as it is essential that we provide a high performing lubricant and specialised support services to ensure that our customers use the right lubricant with low sulphur fuels. The 2015 ECA regulation changes are a major milestone but further reductions to SOx, NOx and particulate matter will continue to drive change, including the types of fuels that will be used to meet increasingly stringent targets.

Additionally, the focus on CO<sub>2</sub> emissions reduction is also driving the development of more fuel-efficient engines. A direct result of this has been the need for high BN oils to combat corrosion. We therefore need to help customers manage the complexity of using different lube oil types to cover the wide range of demands from today's operational environment.

Castrol has also been at the forefront of developing Environmentally Acceptable Lubricants (EALs) that meet US EPA 2013 Vessel General Permit and similar regulations to help vessel operators to mitigate their environmental impact and maximise operational performance.

Castrol's BioStat and BioBar product ranges as well as BioTac OG are registered under OSPAR (Oslo and Paris Convention) and therefore meet the criteria for EALs under the US 2013 VGP. In light of anticipated future environmental regulations, for example in Europe, we are exploring the potential development of a second generation of EALs.

**Q** Tell us about your business in India and what opportunities do you see here?

**A** Our marine business in India comprises supply operations in 27 ports including Kandla, Paradip, JNPT, Mumbai and Chennai. As India's market leader in retail automotive lubricants, the company's vast portfolio of high performance automotive lubricants includes Castrol EDGE, Castrol MAGNATEC, Castrol Power1, Castrol Activ and Castrol CRB. These products are available across the country through over 90,000 retail outlets. Castrol India Limited also has a complete range of products for industrial applications and is the market leader in the metal cutting fluids segment. [www](#)

# OIL PRICE VOLATILITY RISKS AND OPPORTUNITIES IN 2015

VLCCs are increasingly being chartered for use as floating storage units to store crude oil, but concerns remain regarding the obligations, liabilities and risks to be borne by both the charterer and owner of the tanker




**T**anker owners are happy. VLCCs and Suezmaxes are generating strong cash flows and charterers are rushing to procure tonnage in an increasingly tight market. Commentators estimate that 40-50 older VLCCs have been commissioned on long-term charters to store crude. Are there any legal concerns with tankers being used for floating storage? Tanker owners see less risk in their tankers sitting stationary than sailing the high seas, but need to ask where they will anchor, for how long and whether this changes the applicable regulatory regime. If a 'storage tanker' is actually a floating storage unit (FSU), there is increased permitting required and a reduced ability to limit liability under the International Convention on Civil Liability for Oil Pollution Damage. While the Convention imposes strict liability for pollution damage on the owner, it does allow for this liability to be limited, absent actual fault of the owner. This reduction in liability does not apply to FSUs though.

Owners will need to know up front where the tanker will sit. This is for maintenance and staff planning even if it is not a concern to the insurers. There are obligations under Flag and Class for the owner to fulfill, plus the requirements of the Hague or Hague-Visby rules and the law of the relevant coastal states.

Looking through the Tankers Fixtures List of the Lloyd's List on the day of writing, 25 VLCCs and Suezmaxes were chartered, with two thirds of the VLCCs taken by Unipet for China with Reliance, oil majors and traders accounting for the next. At the recent Marine Money, London Ship Finance Forum, it was reported that Chinese shippers were shopping for several VLCCs on 2-year charters





after concluding an agreement with Russian sellers desperate for cash as the sanctions take hold.

### Where in the World?

For the sovereign charterers, it makes sense to anchor close to home. The three big risks facing tankers in parts of Asia are piracy, weather and terrorism. Owners have the technology and systems to look out for all three but may face reduced control so far from port. Good intelligence is given by the live IMB Piracy and Armed Robbery Map and there may be metocean data available for the area. It is this which will inform the tanker requirements, from global strength of the hull to structural design of both hull and topsides to withstand fatigue cracks. If there is a disaster, the Owner will be fully liable for a vessel failure which results from the strain of standing too long at sea. Of concern is not only the financial liability, but also the environmental damage that will ensue and the potential for loss of life.

Wherever located, the tankers will need space to move in strong winds and currents. With almost all tankers being double-hulled now, they are not as stable in strong currents. Movement of the crude in ballast and cargo tanks can cause the tanker to sway suddenly and, in addition, there may be leakage from the inner layer.

Other seas are off limits as they are Special Areas listed in MARPOL Annex 1 or are part of the seven main transit 'chokepoints' for crude oil. These are obvious targets for pirates and terrorists, as well as the risk of collisions and spills. Some charterers choose

much quieter locations as we saw from recent attempts to work around Iranian sanctions. The 'storage tankers' were well hidden in the South China Sea. Not to the extent of the *United Kalavryta* which disappeared from radar in the Gulf of Mexico for three days in Summer 2014 when the transponder was turned off (to help it hide from a legal arrest). It sat completely invisible with a million barrels of crude even from informed Texan coastguards.

### The charter allocation of duties

So are owners using their negotiating strength to pass the additional vessel and environmental risks to the charterers? This still leaves the owner with the scheduling burden of dry docking, SIRE inspections and Class surveys. Modification to the vessel and additional legal documentation may be required to ensure the vessel is in every way fit for long-term storage and MARPOL compliant. Charter forms have not yet evolved to reflect the different consequences of a long anchorage at sea. Clause 4 of Shelltime 4 does not require a charterer to indicate how many voyages the tanker will undertake or whether it will be stationary.

### Relevant charter considerations remain

The continuing duty to employ the tanker at safe ports and within trading limits. The owner may object to instructions which take the vessel beyond trading limits and expose the vessel to increased risks. The liability for this will sit with the charterer even if the additional insurance premiums are borne by them, because of the safe port obligation. The owners will usually define the capacity of the tanker to perform as contracted in 'good weather.' It must still be capable of satisfying the Vessel requirements set out in the charter and be in every way fit for the service contracted. The nature and extent of the owner's obligation to maintain depends on the exact wording agreed

by the parties to the charter. Additional attention is required if the tanker is to sit in warm seas as the marine growth will undermine performance of the vessel.

Due diligence and reasonable care in cleaning the hold and tanks will be both an express and implied obligation of the owner. The *Shoko Maru* explosion was caused by a crew member cleaning paint off the deck when a little crude was remaining. Responsibility for cargo stowage frequently sits with the owner but the charterer may accept this liability to obtain its choice of vessel and location. The oil majors (led by Shell) who are seen chartering the most VLCCs, perhaps for storage, are more amenable to this.

### Worst case

If the tanker becomes damaged or new regulations are adopted which impact on the ability of the tanker to continue as a 'storage tanker,' this may be a 'frustrating' event (under English law) and may mean that any advance hire paid will be repayable by the owner. A claim to the insurer for 'lay-up' will not be possible because the tanker has been carrying crude.

And if there is an explosion, the owner will look first to the insurance taken out in accordance with the International Convention on Civil Liability for Oil Pollution Damage. This is an amount equal to the Owner's total prescribed liability according to the tanker's gross tonnage. Even the amount applicable to VLCCs of up to 320,000 GT will pale in comparison with the likely third party claims though.

In the haste to sign up another charterer and dust off another underutilised VLCC, owners will be asking where and for how long the tanker will be a storage unit and how the owner will reconcile that with its international legal and environmental obligations. [img](#)

Source: Clyde & Co

# CHINA'S IMPORTS — NEVER MORE IMPORTANT TO SHIPPING?

Chinese iron ore imports surged dramatically last year. But with construction and infrastructure programmes which drove the steel industry over the last decade facing serious problems, the sustainability of these imports is a cause of concern for the dry bulk market

**O**ver the last 15 years China has led maritime forecasters a right old dance. In 2002, rumours that Chinese iron ore imports were about to take off were hard to believe. In those days China's total imports were below 400 mtpa and the ore trade had been sluggish for a decade. But even the most bullish forecasters were way below target and in 2014 seaborne iron ore imports jumped 15 per cent by 119 mt to 914 mt.

## Ironing out the bumps

This was more than total Chinese seaborne imports which only grew by 65 mt in 2014. Coal and metal imports both fell sharply, and the resulting 3 per cent rise was the lowest since the Asia crisis in 1998. So dry bulk should say a very big thank you to Chinese iron ore importers for keeping some water under the hull.

## Economic discomfort

The problem now facing analysts is that the 2014 growth of iron ore imports does not appear to hang together with the rest of the steel economy. Construction slowed and shipbuilding output fell 14 per cent. Overall steel demand decreased

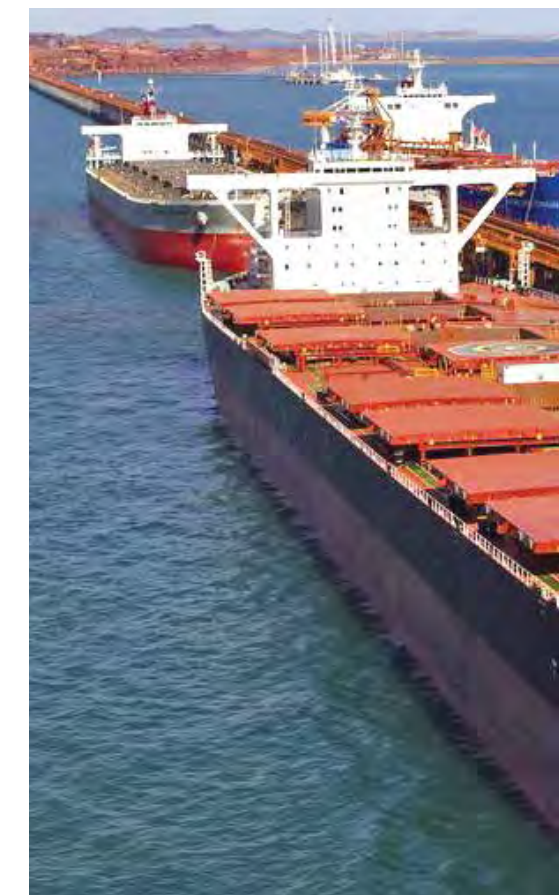
3 per cent, which makes the reported 1 per cent growth in steel output look high. The real driver of import growth was a surge in low-cost ore production by major Australian miners, forcing out higher-cost mines in China and elsewhere. But estimates of the impact on domestic Chinese iron ore production vary, and official statistics suggest total output growth of 4 per cent. Even after accounting for the falling grade of domestic ore, the figures don't quite fit together.

## Inscrutable statistics

What's going on? It's a crucial question. Under-reporting of steel production could be a factor, and historical data has been revised up before. The 50 per cent drop in iron ore prices last year may have led to stock building across the supply chain, or impacted domestic output to a greater extent than reported. Either way, it is clear that steel exports have surged, while strong Australian ore output depressed prices and kept Chinese imports firm.

## Market consequences

The worry for the dry bulk market is if Chinese demand falls enough to

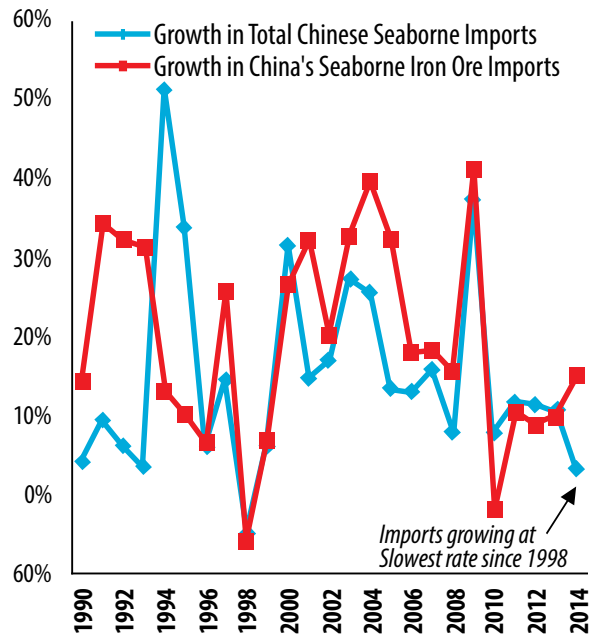




## Chinese Import Growth Slowing, Ore Shipments Still Growing

The graph shows annual growth in total Chinese seaborne imports (blue line) and in China's seaborne imports of iron ore (red line).

Source: Clarkson Research Services



dampen imports. There are legitimate concerns that the construction and infrastructure programs which drove the steel industry over the last decade are facing serious problems. One issue is that the financial foundation of this growth is looking shaky. The debt to GDP ratio has risen sharply since 2010, much of it “back door debt” arranged by the provinces. As one leading economist put it at a conference in Long Beach California this week, “no country has ever escalated debt on this scale without something happening”. He thought the options are a crisis or a decade of slow growth.

### Troublesome times?

So there you have it. Thanks to Chinese steel, in the 2000s the bulker market enjoyed the biggest boom in history. Whatever the position over the debt mountain, readjusting the capital side of the economy will take time. A positive response is that we’ve been worrying about Chinese trade for the last five years – somehow the accident never happened, and there’s more low-cost mine expansion underway. Will our star performer continue to ride its luck? Time will tell. [img](#)

Source: Clarksons

# The Northern sea route

## A distant dream?

While Russia has pinned huge hopes on the Northern Sea Route, it may take decades before it even begins to complement existing trade routes, let alone rival them



**A**s a major global shipping hub, Singapore has a critical interest in future maritime trade patterns. Of particular interest is the opening of Arctic shipping lanes, particularly Russia's Northern Sea Route (NSR), which runs across the top of Siberia and provides the shortest route between Europe and Asia.

According to some analysts, the NSR will, in the long run, divert traffic away from Singapore. However, the sharp decline in commercial traffic along the NSR last year suggests that Singapore should not worry too much.

The NSR stretches 4,828 km from the Barents Sea to the Pacific Ocean. Rapid ice melt caused by climate change has created longer navigational seasons during the summer months, enabling ships to reduce sailing times between Europe and Asia by 30 per cent to 40 per cent. The Northern Sea Route's main advantage is the distance it saves. From Murmansk to Japan through the Suez is 12,800 sea miles, while over the Northern Sea Route it is only 5,800 sea miles.

Revitalising this Stalin-era trade route has been a key element in Russian

President Vladimir Putin's ambitions to economically develop the country's vast Arctic regions and restore its superpower status. Moscow, which levies transit fees on ships using the route, envisages the NSR as a major artery of world trade, along which Asian countries can send their manufactured goods to Europe, while Russia transports oil, gas and minerals in the other direction to the resource-hungry economies of China, Japan and South Korea.

A recent growth spurt in maritime traffic using the NSR buoyed Moscow's hopes. In 2013, 71 vessels transited the route, up from 46 in 2012 and just four in 2010. Optimists predicted that global warming would create ice-free seas for up to four months a year, leading to a spectacular linear growth in shipping.

Last year, those rosy predictions suffered a sobering corrective. Although the Russians issued over 600 transit visas, only 53 vessels used the NSR. Some reports suggested that only about 279,400 tonnes of goods were conveyed along the route, 80 per cent less than in 2013, and a far cry from the peak of 7.1 million tonnes in 1987 during Soviet times. Most strikingly, not a single ship

sailed between a European port and an Asian port; every single journey was from one Russian port to another.

The 25 per cent fall in commercial traffic – from 71 ships in 2013 to 53 in 2014 – can be explained by two factors.

First, plunging oil prices have made Arctic energy resources too costly to extract, while Western sanctions on Russia have deprived its energy majors of investment funds and the technology needed to exploit Arctic crude. As a result, fewer ships were needed to transport commodities on the NSR.

Second, while the retreat of sea ice has created open seas during the summer, ice is always present. Last year, dangerous ice floes on the NSR posed a serious navigational hazard to ships, forcing shipping companies to cancel plans to sail between Europe and Asia via Russia in favour of more traditional, but longer, routes such as the Strait of Malacca (through which 72,657 ships transited last year).

More sober-minded analysts were never taken in by the hype over Arctic shipping, and last year's fall in traffic only confirmed their misgivings about



## Russian control on the route

Motivations for reopening the route are purely pragmatic. According to several estimates, about one-fifth of the world's oil and gas reserves are located in the Arctic region. It's thus no surprise that Russia is in the process of trying to regain control over 1.2 million square kilometres of ocean area that was previously controlled by the Soviet Union.

The frozen oceans of the Arctic are the next great frontier that big oil companies plan to exploit over the coming 15 years. The Arctic region, crossing several national boundaries including Russia, Alaska, Norway and Greenland, is thought by energy consultants Wood Mackenzie to hold an estimated 166 billion barrels of oil equivalent in terms of reserves. That's more petroleum and gas than Iran holds and enough to meet the world's entire annual consumption of crude oil for five years at current rates.

As the race for Arctic oil heats up, President Vladimir Putin dispatched warships to reopen frozen bases that could be used as a springboard for Russian drillers, while also controlling the Northern Sea Route. The Russian energy giant, Rosneft, has already started exploration operations in the Barents Sea. The Shell plans to restart exploration operations in the Alaskan Arctic, using two rigs in the Chukchi to reach production eventually of around 400,000 barrels per day (bpd) of crude. Shell has already spent around \$5 billion (£3 billion) attempting to extract oil from the Alaskan Arctic and its desire to return to the Chukchi is indicative of the importance oil majors now place on the region, which could ultimately deliver 1 million bpd if put into full production, according to some estimates.

the viability of the NSR, at least in the short to medium term.

Refurbishing the NSR's dilapidated Soviet-era physical infrastructure, and bringing navigational, meteorological and search and rescue services up to international standards, will require massive funding. Due to worsening economic conditions caused by the twin collapse of oil prices and its currency, Moscow simply does not have that kind of money.

Instead, it has looked to Asian

investors but, so far, they have yet to step up to the financial plate. Even China, Russia's closest partner in Asia, seems to have lost its enthusiasm for the NSR, and instead is actively promoting its multi-billion-dollar 21st century Maritime Silk Road, an initiative to strengthen infrastructure on existing shipping routes in South-east and South Asia. Potential investors from Asia have also been put off by the route's unsuitability for container ships. Due to geographical constraints, the NSR cannot handle the world's largest container ships, while harsh and

unpredictable weather conditions disrupt schedule reliability on which shipping companies depend for their profits.

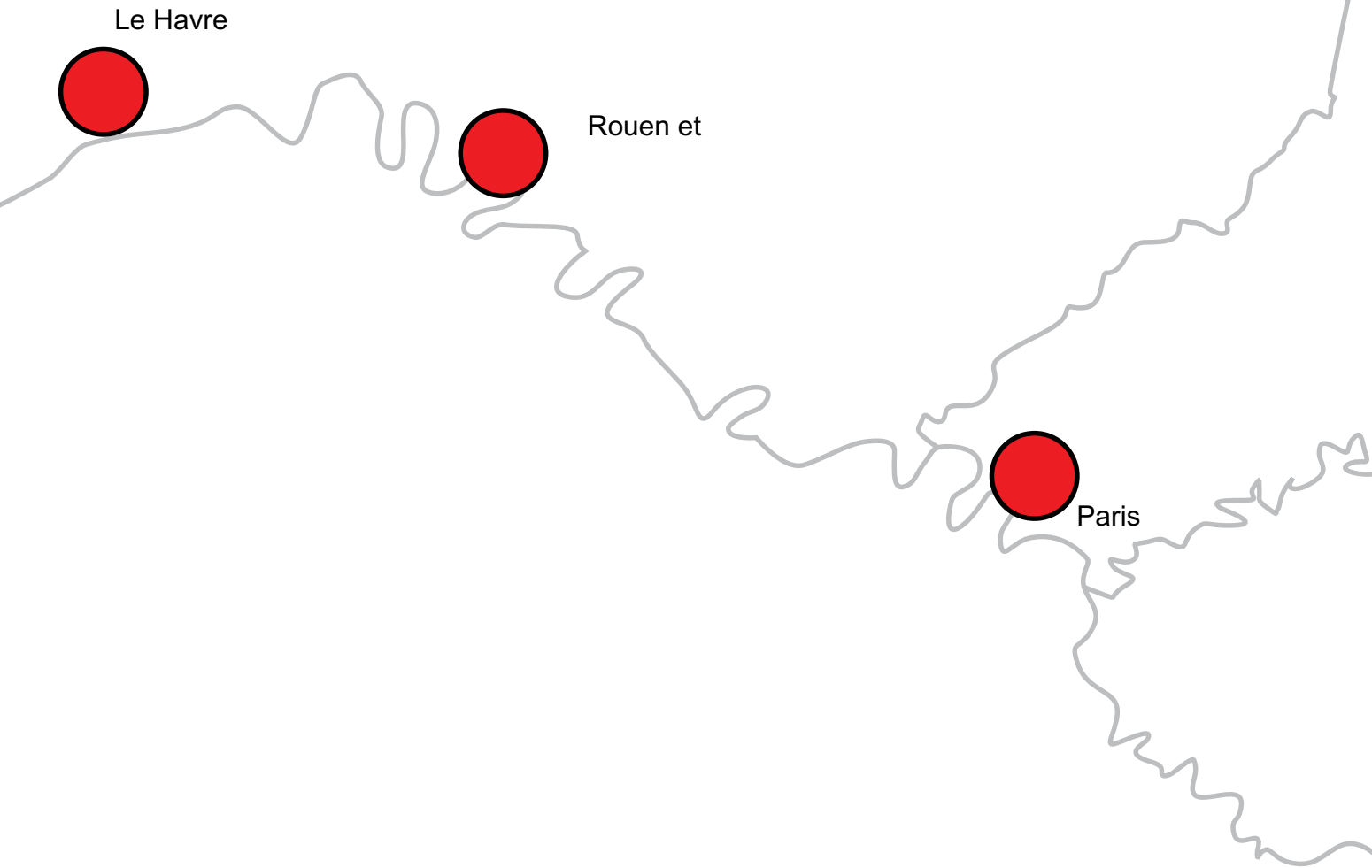
Unlike the Suez Canal-Malacca Strait route, there are far fewer opportunities to offload and take on cargo at ports along the way, further reducing profit margins. Shippers must also factor in additional costs, such as making vessels ice-worthy, providing crews with proper training and paying the Russians for mandatory ice-breaker escort services.

All of this means that while the NSR may provide shorter journey times, the cost per container could actually be higher than when using longer routes.

But, can the NSR's fortunes be turned around? Possibly yes. Scientists are tentatively predicting quicker summer ice melt this year because of warmer air temperatures and higher pressure over the Arctic Ocean. Shipping numbers could well exceed the 2013 record. But weather conditions will remain unpredictable, and the long-term future of the NSR still depends on the commercial viability of Arctic energy resources and foreign investment.

Source: *The Straits Times*





Le Havre

Rouen et

Paris

**HAROPA**

# Bridging Indo-European trade

Connecting to all major ports in India and being 30 per cent cheaper than any other port in Europe, HAROPA offers a complete logistics solution bringing India closer to the European markets

**T**he commitment and the sense of urgency that Prime Minister Narendra Modi is giving to growth and development in India is visible. And to achieve these goals, Europe is the most important partner outside India. It is the biggest partner in trade, investment and technology,” said Jose Manuel Barroso, former President of the European Commission, in an interview. The process for a Free Trade Agreement between India and the European Union was initiated in 2007 and since then much progress has been made. India-European Union trade grew from €28.6 billion in 2003 to €72.7 billion in 2013. The bilateral trade stood at \$101.5 billion in 2013-14. It was \$57.25 billion during April-October this fiscal.

Taking the Indo-European trade to the next level is HAROPA, an economic interest group formed in 2012 and bringing together Ports de Paris, Grand Port Maritime de Rouen,



and Grand Port Maritime du Havre. Owing to its exceptional geographic location, HAROPA gets the preference to be the first North-European port called at for world trade. Equipped with a competitive and sustainable logistics system it is the fifth biggest North-European port that offers regular containerised services to 600 ports of call across all the continents. It has 2.7 million sq.m of warehouses in operation that are multimodally connected.

The port supports Indo-European trade with:

- About 17 shipping companies operating between the two trade destinations
- More than 107 liner commercial offers
- Two direct maritime services (including 4 ports)

HAROPA as part of their annual roadshows in India, conducted this year road shows in Kolkata, Chennai, Mumbai and New Delhi. Officials of Haropa were joined by their allied services organisations and French customs. During the roadshows they invited Indian exporters to use the HAROPA hub for cost effectively exporting to destinations across Europe.

HAROPA is the leading European port for cereal exports to India with 300,000 tonnes of peas bound to India annually. Indian companies including Reliance Industries, Tata Motors, Mahindra & Mahindra, Dhunseri Petrochemicals and Electrosteel Castings have been

using the HAROPA port system, said **Herve Cornede, Commercial and Marketing Director of Grand Port Maritime**



**Du Havre.** The port is connected with all Indian major ports and is said to be 30 per cent cheaper than any other port in Europe. In fact, an exporter can save between three and seven days when moving goods from Nhava-Sheva and Kolkata Port to Le Havre, compared to other European ports. From Le Havre to Indian ports, between one and three days can be saved. Thanks to the Franco-India trade ties, transshipment of break bulk and container cargoes from India to HAROPA goes without VAT and customs.



According to **Capt Avinash Batra, Chairman, Seahorse Ship Agencies Pvt Ltd,** HAROPA is the cheapest port to do business with.

Indian customers who are exporting/importing from Africa can use this as a hub. This facility is like FTZ with no need to enter into the European Union.

### Potential to boost chemical trade with India

Some of the major chemicals businesses are located at the HAROPA port industrial zone, including Total Petrochemicals, Chevron, Yara, Lubrizol, LBC Sogestrol, Rubis Terminal. Paris is the biggest chemical exporter in Europe and Upper Normandy being the fourth largest. About 14 per cent of chemical firms in France are located near the Seine artery.

### What makes HAROPA stand apart?

All four alliances in container shipping have chosen HAROPA to call. 18,000-teu ships can call at this port. Currently there are two daily departures to Asia and Africa. While Du Havre serves container trade and Ro-Ro, Rouen



We run four weekly services from India. HAROPA is our first port of call in France. 9,400 teu vessels would be pressed into service soon."



**Philippe Blasset, MD, CMA CGM**



HAROPA Port has been a great solution for us. We carry a lot of African cargo through this port. Because of HAROPA we could improve our transit time and service our customers better."



**Shantha Martin**

CEO - ISC, Middle East, South & East Africa Allcargo Logistics Ltd



You may be surprised to know that it takes less than five minutes to clear your cargo. In a complete paperless environment customs clearance is fast, efficient and available 24X7."



**Laetitia Flour Bourril**

French Customs Official



MSC made €160 million investment at HAROPA and made it a home terminal. We run three services here."



**Capt Swaminathan**

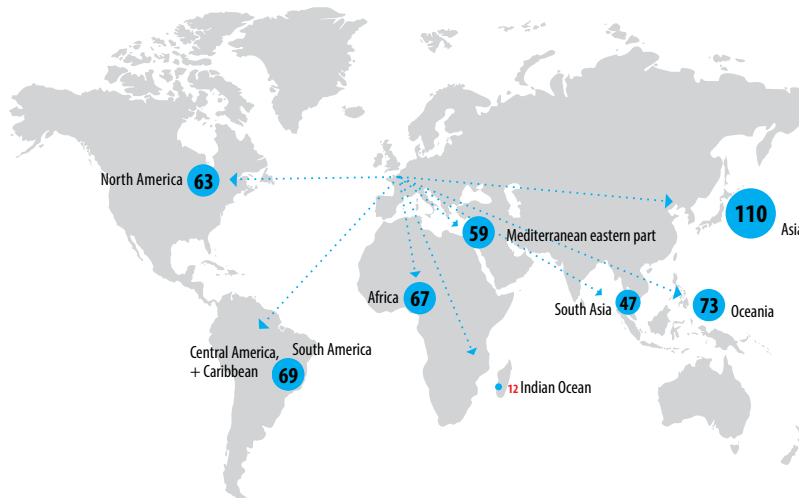
General Manager - Marketing & Sales, MSC Agency India Pvt Ltd

**Main cargo exchanged between HAROPA and India**

From India	To India
Leather	Cereals
Textile garments	Cellulose and waste
Manufactured goods, chemicals	Manufactured goods, chemicals, machinery, motors and parts



**Number of Ports called at (April 2014)**



highly environment-friendly solution for moving heavy cargo as waterways generate four-times less CO<sub>2</sub> than road transport.

**The Ro-Ro terminal at Le Havre**

Equipped with the Ro-Ro MAX procedure the port of Le Havre is geared to become the European benchmark in handling automobiles. It has already gained the distinction of the biggest French automotive platform, moving 3,05,000 new vehicles in 2013. Spread over 100 hectares this is a multimodal terminal that takes 450 calls per year.

**HAROPA – The reefer expert**

It is the leading French platform for moving temperature-controlled goods, with most of the major shipping companies moving reefer containers touching the port. The border inspection post (BIP) and community entrance point (CEP) in Le Havre are the biggest inspection centres in France. The port has recorded a cargo acceptance rate of 99 per cent in 2014. It has 550,000 cubic metres of temperature controlled storage capacity. A logistics zone dedicated for temperature controlled storage, around 50 specialised freight forwarders, all container terminals equipped with reefer plugs (2,500 in total) and additional plugs can be provided on request, transport services for reefer containers with around 100 hauliers expert in temperature-controlled transport.

Value-added services include inventory control, order preparation, freezing/deep freezing and electronic data interchange. [mty](#)



handles break bulk and is the hub for Africa cargo. Paris port is a river side port with 900 hectares of land and one million meters of warehousing available for cargo operations. Container volumes have been growing at the rate of 18 per cent at HAROPA.

The ports of Paris, de Rouen and du Havre together generate 90 million tonnes of maritime trade. In 2014, HAROPA posted 5 per cent growth in container traffic (26.9 million tonnes) to stand at 2.7 million teu (registering a growth of 2.3 per cent). The river Seine

port network ranks first among French ports with 35 per cent of market share.

**Quicker customs**

French customs has been ranked number one in the “Doing Business 2014” ranking by the World Bank. Apart from being 100 per cent paperless and operating 24X7, it takes just five minutes for the customs to clear a cargo transit. It has a one-stop port shop for tracing all operations owing to interconnection with the cargo community system AP+. A single point data management via the CCS AP+ software; and the newly introduced process of reverse charge for VAT for central simplified clearance procedure are some of the key highlights of the customs service.

**Heavy-lift/ out-of-gauge cargo handling**

HAROPA offers a unique solution on the Seine artery for moving heavy-lift/ out-of-gauge cargo without any weight or volume restrictions. The port has 31 dedicated berths equipped with high-end facilities and machinery. It performed 1,500 heavy cargo lifts in 2013. It is a



# SIGNALS OF CHANGE

Ocean governance, leadership requirements and manufacturing developments to potentially have profound long-term impacts on shipping supply chain. The Sustainable Shipping Initiative identifies the signals of change that could reshape shipping's future.



**T**he Sustainable Shipping Initiative (SSI), a pioneering coalition of companies from across the global shipping industry, has released a new report, 'Signals of Change', that explores the potential impact of emerging technology, policy and behaviours on the future of sustainable shipping.

This report is in partnership with Forum for the Future through its Futures Centre digital platform, as part of an ongoing initiative to collectively track innovations and respond to signals of change in the shipping industry. Three unifying themes emerged from the analysis, which could evolve to have a significant impact on shipping. These are:

- Managing the demands and dynamics of ocean governance
- The changing requirements of shipping industry leaders, and
- The re-shaping of supply chains due to

manufacturing developments.

"Despite the immediate challenges facing shipping, to ensure that the industry is robust, dynamic and profitable in the future, it is important to step back and evaluate how the global innovations that are either outside of, or adjacent to shipping, could have an impact on the sector", commented Alastair Fischbacher, Chief Executive, The Sustainable Shipping Initiative. "We live in a world of increasing dynamism and volatility, where drivers such as climate change, growing demand for limited resources and increasing hyper-connectivity will have major effects on business. The industry will be better placed to adapt and seize opportunities if it identifies and understands these signs early on."


The report highlights the wide-reaching impact of human activity in the marine ecosystem, particularly within the current context of emerging issues such as vessel quieting and underwater

noise regulation as well as growing scrutiny of geoengineering as ocean acidification rates rise to unprecedented levels. Seabed mining could also become a major game-changer: despite polarised views on its feasibility as a sustainable source of natural resources. The International Seabed Authority (ISA) has granted 19 exploration licences to date, and the first commercial deep-sea mining project, by Nautilus Minerals in Papua New Guinea, is expected to start operations within the next five years. Such initiatives are likely to drive further debate around the ownership rights and regulatory developments of the oceans.

As with all sectors, shipping will have to manage the changing demands on its leaders both at sea and onshore. In addition to the pressures of the digital era in terms of demonstrating transparency and accountability for both company and personal actions, changes in how shareholder value are measured, such as divestment campaigns around fossil fuels, could require executives to live up to different performance expectations. If emerging factors, including remote-controlled vessels, 4D printing and the greater automation of repetitive operations in ship-yards, are scaled, they could have a dramatic impact on the roles of those working within the industry.

How the nature of manufacturing evolves over the next decade and beyond will have a dramatic impact on the production and transportation of cargo. Combined with increased efforts to 'close the loop' on production through reverse logistics, supply chains will become increasingly complex, which the shipping industry will need to respond to.

The SSI and the Futures Centre will continue to monitor these and other macro trends to see how they develop and to highlight where solutions might be required. Alastair Fischbacher said, "We will continue to monitor how these signals of change take shape within their different contexts as well looking into what other signs are on the horizon."

"Ultimately, the environment is constantly evolving and the SSI is passionate about helping the shipping industry to proactively prepare, adapt and embrace opportunities that emerge so that it thrives sustainably in the face of change." 

**M**SC Orchestra recently made its maiden call at Mumbai port. Coming from Dubai the cruise stopped by at Mumbai before proceeding to Cochin, Sri Lanka, Singapore and beyond. India is an emerging market for cruise segment, says Amit Mathur, Country Head, India, MSC Cruises. There is a growing demand for cruise tours from India to the Europe. The cruise has witnessed a 30 per cent rise in sales in 2013 over the previous year and plans to focus on cruise tour packages to Dubai-Abu Dhabi-Oman, and three- or four-night South Africa cruise packages. Cruise tourism is a growing segment worldwide, and to promote it in India, MSC cruises organises roadshows in collaboration with their sales agent – Sharaf Travels.

Only cruising offers the unique combination of different entertainment options onboard a ship while visiting several countries. And it's not just for vacation, for instance, a lot can happen

aboard the MSC Cruise including promo events, meetings/conventions, product launches, conferences, etc. MSC Cruises offers a perfect blend of business and pleasure. Each of its 11 modern ships with spectacular interiors and green technology are perfectly designed and equipped to host special events and groups of different sizes.

Launched in 2007, *MSC Orchestra* is the latest addition to the fleet. The second of the 'Musica-class' line of cruise ships, it offers the perfect blend of design, comfort and safety. Onboard entertainment facilities include: jog on a dedicated track, indulge in a rejuvenating Turkish bath, dine at the Shanghai Chinese restaurant, relax in the exotic animal-print Savannah Bar, sumptuous Purple Bar or enjoy Hollywood-style glamour in the chic Zaffiro Bar. Try your luck at the Palm Beach Casino, dance the night away in the disco or take in a show at the Covent Garden Theatre, with a programme packed with entertaining shows with music.

### Dubai relaxes Visa norms for cruise travelers from India

With an aim to boost cruise tourism, the Dubai Government has relaxed visa rules for Indian tourists who book on cruise excursions. Multiple entry visas will be issued for those using cruise and the visa will be valid for a month. By 2020 Dubai aims to attract one million cruise passengers a year from across the globe, and India and China will be the most important source markets. To promote cruise tours, Dubai Tourism in the recent past conducted road shows in four cities – Delhi, Chennai, Bengaluru and Mumbai – in partnership with cruise operators MSC, Costa and RoyalCaribbean.

# A perfect blend of business and pleasure

Be it a vacation or business meeting, MSC Orchestra offers the perfect venue along with a host of entertainment options

Omer Ahmed



*MSC Orchestra* boasts a total of 16 decks, with sauna and whirlpool facilities, a wide choice of restaurants and cosy family pizzerias. Kids can go wild in the Jungle Adventure playroom whilst teens will quickly feel at home in the Teen's Club.

Conference facilities include meeting rooms, theatre, lounges, projectors and video players, internet workstations, access points and wireless connections, phone/fax, hostess and interpreters, photography services, advanced sound and light systems. **ING**



# India's trade balance

During the April-January 2014-15 period Indian exports registered a 2.44 per cent growth on cumulative basis, while imports increased by 2.17 per cent

**I**ndian exports (including re-exports) during January 2015 were valued at \$23,883.60 million (₹1,48,617.82 crore) which was 11.19 per cent lower in Dollar terms (10.97 per cent lower in Rupee terms) than the level of \$26,891.58 million (₹1,66,932.15 crore) during January 2014. Cumulative value of exports for the period April-January 2014-15 was \$2,65,037.38 million (₹16,13,789.24 crore) as against \$ 2,58,721.45 million (₹15,62,119.12 crore) registering a growth of 2.44 per cent in Dollar terms and growth of 3.31 per cent in Rupee terms over the same period last year.

## Imports

Imports during January 2015 were valued at \$32,205.63 million (₹2,00,402.44 crore) which was 11.39 per cent lower in Dollar terms and 11.18 per cent lower in Rupee

terms over the level of imports valued at \$36,346.32 million (₹2,25,623.44 crore) in January 2014. Cumulative value of imports for the period April-January 2014-15 was \$3,83,411.33 million (₹23,34,685.06 crore) as against \$3,75,253.67 million (₹22,53,984.83 crore) registering a growth of 2.17 per cent in Dollar terms and growth of 3.58 per cent in Rupee terms over the same period last year.

## Crude oil and non-oil imports

Oil imports during January 2015 were valued at \$8,247.65 million which was 37.46 per cent lower than oil imports valued at \$13,187.76 million in the corresponding period last year. Oil imports during April-January, 2014-15 were valued at \$1,24,747.13 million which was 7.87 per cent lower than the oil imports of \$1,35,396.32 million in the corresponding period last year.

## Exports decline with falling global demand

Indian exports declined for the third consecutive month in February, decreasing by 15.02 per cent, the steepest during the current financial year, even as the trade deficit came down to a 17-month low of \$6.8 billion owing to a fall in oil imports.

According to the data released by the ministry of commerce and industry, during february, the merchandise exports were \$21.54 billion, compared to \$25.35 billion during the same period a year ago, primarily due to contracting global demand and softening of metal and commodities' prices.

During February, imports also declined 15.66 per cent to \$28.39 billion as against \$33.66 billion during the corresponding period a year ago.

Non-oil imports during January 2015 were estimated at \$23,957.98 million which was 3.45 per cent higher than non-oil imports of \$23,158.56 million in January 2014. Non-oil imports during April-January, 2014-15 were valued at \$2,58,664.20 million which was 7.84 per cent higher than the level of such imports valued at \$2,39,857.35 million in April-January 2013-14.

## Trade balance

The trade deficit for April-January 2014-15 was estimated at \$1,18,373.95 million which was higher than the deficit of \$1,16,532.22 million during April-January 2013-14.


## Exports (receipts)

Exports during December 2014 were valued at \$14,303 million (₹89,755.62 crore).

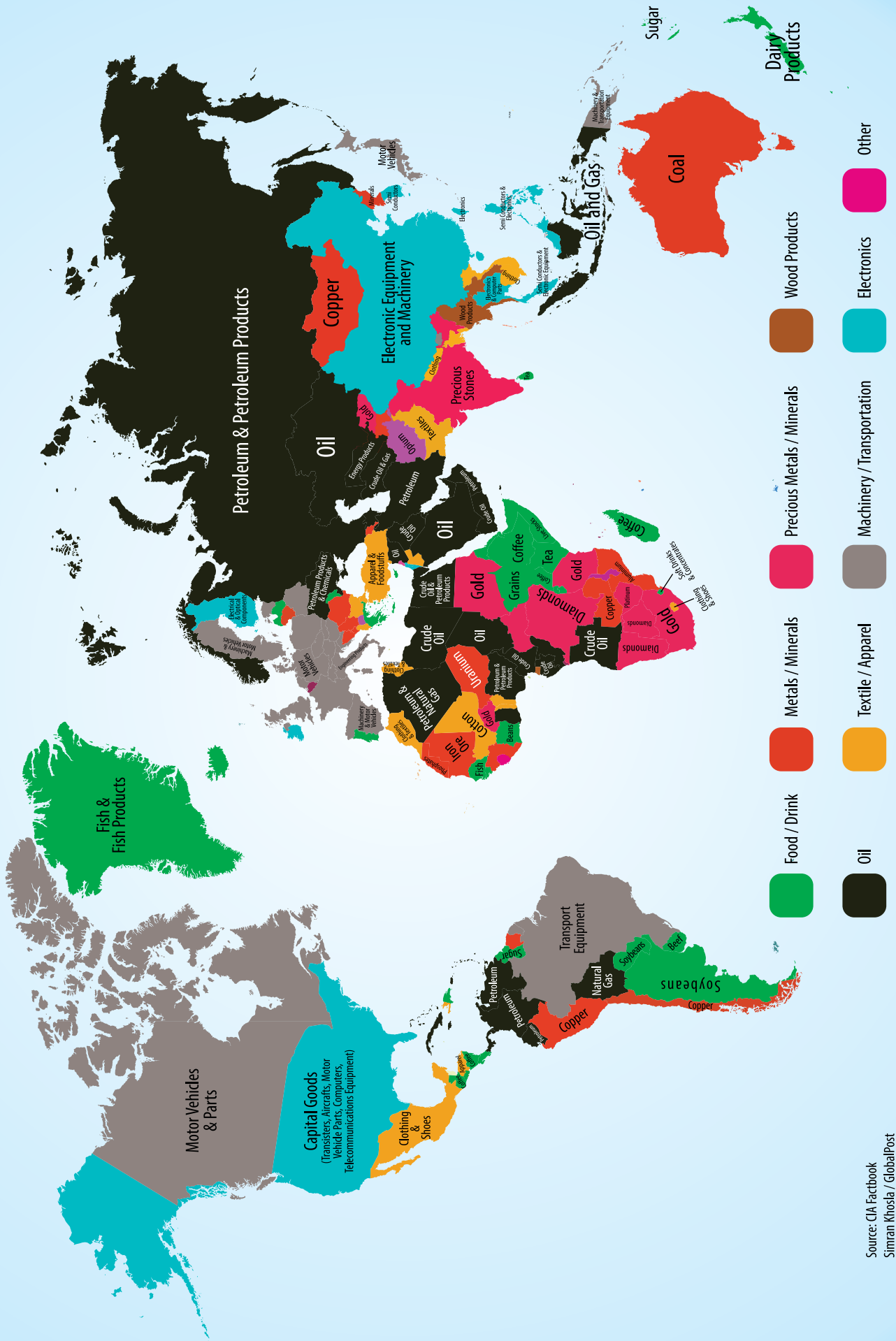
## Imports (payments)

Imports during December 2014 were valued at \$7,240 million (₹45,433.17 crore).

## Trade balance

The trade balance in services (i.e. net exports of services) for december 2014 was estimated at \$7,063 million. 

# WORLD COMMODITIES EXPORTS—2014



Source: CIA Factbook  
Simran Khosla / GlobalPost

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