

India's premier maritime business magazine

maritime gateway

July 2012 ₹ 100

www.maritimegateway.com



Establishing Class in Shipping

Noberu Ueda, Chairman of ClassNK, talks about the company's efforts to reduce maritime emissions



LOOK EAST POLICY TO DRIVE AP PORTS' GROWTH

Ports in Andhra Pradesh are set to benefit as trade grows between India and South Asian countries, especially China, amidst a western economic downturn



Port of Chennai

Port-Par Excellence

Best Tourism Friendly Port



National Tourism
Awards 2009

अतुल्य! भारत
Incredible India



Salient Features

- Emerging Hub Port on East Coast of India
- State-of-the-Art Passenger Cum Cruise Terminal
- Among the World's Top 100 Container Ports
- India's No.1 Car Terminal
- Excellent Rail / Road connectivity

Future Projects

- Mega Container Terminal with 2 km long Quay
- Ro-Ro Terminal with Multilevel Car Parking
- Elevated Expressway of 19 Kms
- Integrated Dry Port and Multimodal Logistics Hub
- World-class recreation and Marina

Chennai Port Trust

ISO 9001:2008, 14001 : 2004 & ISPS Compliant Port

No. 1, Rajaji Salai, Chennai - 600 001. Phone: 91-44-2536 2201 Fax : 91-44-2536 0278

Grams : PORTRUST E-mail : tm@chennaiport.gov.in / marketing@chennaiport.gov.in

Port Help Line No.12777

Website : www.chennaiport.gov.in

Will the Economy Finally Recover in 2012?



Can we finally see an end to the economic crisis, and hope for a strong, meaningful rebound to growth and financial stability sometime this year? Though there are some reasons to be hopeful, there is still too much uncertainty, too many problems left unresolved from the financial crisis, and too few tools in the hands of policymakers to support growth.

It's no wonder that economists have been steadily lowering their growth forecasts for 2012.

All of this adds up to the fact that the year 2012 is potentially uglier than 2011. All eyes now remain fixed, first and foremost, on Europe and its debt crisis. Much of what happens to the global economy in 2012 will be determined by the Eurozone. Europe is a huge market for exports from the US and Asia, and a recession there will dent the growth prospects of the rest of the world. The US presidential election and the political turmoil in the Middle East, Russia and elsewhere will also be on watch.

It was expected that the Chinese and Indian economies would continue to roar and hold up global growth. But there are problems afoot in the developing world as well.

China's economy remains too reliant on investment rather than domestic consumption. It is slowing down and growth has fallen steadily since 2010, hurting demand for oil, industrial components and consumer goods at a time when the US and Europe are passing through hard economic times. Rating agencies like Fitch and Standard & Poor's have lowered India's outlook to negative from stable, citing stalled structural reforms, high inflation and limited progress on fiscal consolidation. Indian government is having a tough time improving the investment climate.

With a Eurozone catastrophe off the table, at least for now, it will be interesting to see how capital flows to the emerging world and accelerates Asian economies.

The container shipping industry is still struggling to recover from a frenzy of new ship orders in 2008, with a large number of new vessels expected to enter the world fleets in 2012-13. Attempts by some of the major players to address this oversupply – by retiring older vessels, delaying orders, or reducing capacity on key routes – have had limited impact. Now it is believed that the industry's complete return to health is unlikely before 2013. According to a recent report released by ICRA, weakness will persist in the dry bulk segment. While tanker segment would see a slow recovery, the report says that containerised trade will have relatively better prospects.

Whichever way 2012 plays out, we're in for a very uncertain, and potentially wild, economic ride. Much more needs to be done to build a more durable recovery. Hold on!

Best Regards



Ramprasad

Editor-in-Chief and Publisher
ramprasad@gatewaymedia.in

Editor-in-Chief and Publisher Ramprasad
ramprasad@gatewaymedia.in

Sr Assistant Editor Sreekala G
sreekala@gatewaymedia.in

Special Correspondent Ritu Gupta
ritugup@gmail.com

Copy Editor Srinivas Reddy G

Head - Design Jayaraj Frederick

Sr Designers Vijay Masa, Lakshmi Dandamudi

Designer Nagaraju N S

Asst Vice President - Operations Wilson Rajan
wilson@gatewaymedia.in - 099499 05432

Marketing & Sales

Mumbai Dr Shibu John Asst Vice President - S&M
shibu@gatewaymedia.in - 098676 82002

Delhi Manish Bothra Manager
manish@gatewaymedia.in - 91 98911 38952

Kolkata Nikhil Doshi GM - Sales
nikhil@gatewaymedia.in - 098369 96293

Circulation Unnikrishna Pillai S
unnikrishnan@gatewaymedia.in - 095059 19923

Maritime Gateway is printed by L Vijayanand Reddy published by L Vijayanand Reddy on behalf of Gateway Media Pvt. Ltd., Plot No.761, Road No.39, Jubilee Hills, Hyderabad – 500 033, A.P., India and Printed at M/s. Kala Jyothi Process Pvt. Ltd., 1-1-60/5, RTC cross roads, Musheerabad, Hyderabad - 500 020, and Published at Gateway Media Pvt. Ltd. Plot No.761, Road No.39, Jubilee Hills, Hyderabad – 500 033, A.P., India
Editor: L Vijayanand Reddy

Please note

Views expressed in the articles are those of the writer(s) and may not be shared by the editor or members of the editorial board. Unsolicited material will not be returned.

Copyright

No material published here should be reproduced in any form without prior written permission from Gateway Media.

Feedback

Readers are advised to send all feedback and comments to editor@gatewaymedia.in

SUBSCRIBE

Phone : +91 (40) 2330 0061 / 2330 0626
e-mail : subscribe@gatewaymedia.in

write to : Gateway Media Pvt. Ltd., # 407, Fifth Floor, Pavani Plaza, Khairatabad, Hyderabad – 500 004, INDIA.
Tel : +91(40) 2330 0061, 2330 0626; Fax : +91(40) 2330 0665
www.maritimegateway.com

Digital Magazine: <http://emag.maritimegateway.com>

EDITORIAL ADVISORY BOARD

L Radhakrishnan Chairman, Jawaharlal Nehru Port Trust (JNPT)	A Janardhana Rao MD, Indian Ports Association
Capt Deepak Tewari Chairman, Container Shipping Lines Association (CSLA)	S S Kulkarni Secretary General, Indian Private Ports & Terminals' Association
B B Pattanaik MD, Central Warehousing Corporation	Capt Ram Ramchandran Former President, NISAA
Anand Sheth President, Association of Multimodal Transport Operators of India (AMTOI)	Capt Sanjeev Rishi Advisor, Worlds Window Infrastructure & Logistics Pvt Ltd
Jasjit Sethi CEO, TCI Supply Chain Solution	Joachim von der Heydt Chairman, Bengal Tiger Line, Singapore
Anil Singh Sr VP & MD, DP World Subcontinent	Capt Subhangshu Dutt Vice President, Institute of Chartered Shipbrokers, Singapore



COVER STORY p.16

Look East Policy to Drive AP Ports' Growth

Ports in Andhra Pradesh are set to benefit as trade grows between India and South Asian countries, especially China, amidst a western economic downturn.

INTERVIEWS.....

Establishing Class in Shipping.....26

Noberu Ueda, chairman of classNK talks about everchanging emission norms, impact of economic crisis on shipping industry and his company's research programmes



Global Movers 36

Meenu Sawhney, Manager, Business Development India, Cargill, talks about company's Indian operations in ETM and her experiences with Indian ports.



Hot Story in Cold Chain 54

Ravi Kannan, CEO and Director of Snowman Logistics Limited, speaks to Anuradha M on how the company has grown into a leading cold chain logistics company and carved a niche for itself



SPECIAL FEATURE.....

Harbingers of Change 37

During the last five and half decades, several shipping ministers were instrumental in making key decisions that changed the shape of Indian Shipping Industry. What was once a combination of communications, transportation and shipping, the ministry came a long way with several game-changing policies.

SHIPBUILDING: Global
Tough Times Ahead 22

Dwindling new building orders worldwide due to economic slowdown has the global shipbuilding industry in for challenging times.

SHIPBUILDING: India
Indian Shipyards Face Slump;
Rely on Defence Orders 23

Indian shipyards, which are relying on defence orders to stay afloat, seek tax reforms and subsidy to remain competitive in the global market.

COMPANY FOCUS: ClassNK
Preparing for the Future 24FOCUS: Essar Ports
Essar Steams Ahead 32ANALYSIS
LNG as Alternative Ship Fuel 34REGION FOCUS : SRI LANKA
Neighbour that Matters 46CLASS ROOM
Panama Canal Expansion 48COMMODITIES
In Need of a Revolution Again 50COLD CHAIN LOGISTICS
Extending Shelf Life 53MARKET TRENDS
Too Heavy to Ignore 58

OTHERS

Numbers 06

News 08

Event Preview 60

Happenings 62

Agenda 63

OPINION - Yudhishtir Khatau 64



Process excellence that re-defines service.

APM Terminals Inland Services, South Asia, comprises 7 container freight stations with total bonded area covering 3.3 million sq. ft. empty depots at more than 10 locations featuring state-of-the-art dry and reefer workshops backed by a strong trucking fleet that manages shunts and primary transportation.

Powered by a dedicated team of over 280 skilled professionals we serve every major shipping line, Importers and Exporters. Our strong belief in employing utmost attention to the smallest detail required for the best integrated solutions in inland logistics business' guides us to provide you indispensable services like timely evacuation from port, truck turn around in CFS and process excellence that encompasses the highest standards of safety and security. Just another small detail for business excellence we believe.

APM TERMINALS INLAND SERVICES

Container Freight Stations | Empty Depot and Repair | Transportation

iscommercial@apmterminals.com
www.apmterminalssouthasia.com



London Gateway will be the UK's first 21st Century major deep-sea container port and Europe's largest logistics park. Situated on the north bank of the River Thames, the port will offer integrated logistics services through its logistics park to ensure that trade does not have to travel far. This concept of integration is known as Port Centric Logistics.

China grain imports to rise, India eyes more exports

China will import more corn and soybeans next season to keep pace with growing domestic demand, while India is trying to export more of its record wheat and rice crops to reduce its surplus. China, already the world's largest soybean importer, is expected to increase its imports of the oilseed to 57.5 million tonnes (mt) in 2012/13 from 55 mt in the current season. India is aiming to export more of an estimated wheat export surplus of 5-6 mt after shipping about 1 mt so far this season.

PSA gets govt nod to sell stake in Chennai Port

PSA International Pte Ltd, the world's second biggest container port operator, has won approval from the shipping ministry to sell up to 26 per cent stake in a container terminal it runs at Chennai Port to its local partner ABG Ports Pvt Ltd.

Coal India Ltd targets 615 mt production by 2016-17

Under pressure from various quarters to enhance output in the wake of increasing coal demand, Coal India Limited has identified 69 new projects and 56 spill-over schemes to jack up output to 615 mt by 2016-17. CIL had recorded 435.84 mt production in 2011-12, missing the 447 mt revised target for the year. It has fixed a production target of 468.74 mt for FY 2013.

The PSU, which meets 80 per cent of the domestic demand has set 615 mt target for the terminal year of the Twelfth Plan with the assumptions that regulatory hurdles impeding enhancement of output would be removed, the statement added.

GVK wins Australian state nod for coal rail line

GVK Power & Infrastructure won approval from the Australian state of Queensland for a proposed 500-km rail line, clearing another hurdle for its \$10-billion Alpha Coal Project. The state is looking to speed approvals for projects in its Galilee Basin in central Queensland, where five major mines could produce more than 200 mt of coal a year, putting it on par with the state's coal-rich Bowen Basin. The state also approved a competing rail corridor proposed by coal rail transporter, QR National working with another Indian company, Adani Enterprises, to develop another mine in the untapped Galilee Basin. Adani Enterprises will look for partners to help fund the rail line.

Pipavav ties up with European defence firm DCNS

Pipavav Defence and Offshore Engineering Company has entered into a tie-up with European defence manufacturer DCNS to get access to its know-how in naval shipbuilding efforts. Through the strategic partnership, Pipavav, which is already building assets for the Indian Navy, will get access to DCNS' technologies, methods and skills.

Tribunal seeks response over Mumbai oil spill

The National Green Tribunal has sought replies from the Centre and the owner of Panama-flagged cargo vessel *MV Rak*, which sank off Mumbai coast last year, on a plea for compensation for damages caused to the marine ecology due to an oil spill.

The tribunal issued notices to Ministry of Environment and Forests (MoEF), the Maharashtra government, Mumbai Maritime Board and the ship's owner Delta Shipping Marine Services, SA for the environmental damages caused due to the dumping of 60,000 metric tonnes coal from the ship into the sea.

L&T Shipbuilding wins orders worth ₹483 crore from Qatar

Qatar-based Halul Offshore Services has contracted L&T Shipbuilding to design, build, and commission two platform supply vessels (PSVs) and two anchor handling, towing, supply, and support vessels (AHTSSVs) valued at ₹483 crore (\$86.3 million). The PSVs will be equipped for firefighting, rescue and standby, offshore supply, oil recovery and related duties, with diesel-electric propulsion, and DP-2 capability.

Odisha identifies six hubs for logistic parks

In its endeavour to provide one-stop solution to industries in the areas of transportation, inventory management and warehousing material handling, the state government has identified six industrial hubs – Rourkela, Paradip, Kalinganagar, Jharsuguda, Angul and Dhamra – for developing logistics parks. According to preliminary estimates, each of these logistics parks would need 50-150 acres of land with investment in the range of ₹50-500 crore.

The logistic parks will include facilities like warehouses, distribution centres, storage areas, offices, truck services, parking lots, truck terminals, container rail terminal, container handling facilities, cold storages, distribution centres, air cargo points, lorries, maintenance points, service stations, hospitals and restaurants. In addition, such parks would be equipped with weighbridges, telecommunication facilities, banks, health awareness units and recreation centres.

The logistics parks to be developed on the public private partnership (PPP) mode would be served by roads, railways, inland waterways and airways.

NMDC to start coal production by 2014

State-owned iron ore miner NMDC, which is setting up a 3 million tonnes per annum (mtpa) steel plant in Chhattisgarh, hopes to start producing coal from its captive mine by 2014, coinciding with the commissioning of facility for the alloy. In a recent presentation to the steel ministry, NMDC has said it is taking "all necessary steps" to start production from the Shahpur West block in Madhya Pradesh in 2014. Coal Ministry has already given approval to mine closure plan for the block.

ABG Shipyard net profit rises

ABG Shipyard Limited, country's largest private shipbuilding company announced 25 per cent rise in its net sales to ₹658.59 crore (\$117.7 million) for the quarter-ended March 31, 2012 as against ₹527.84 crore (\$94.4 million) in the corresponding quarter of last fiscal. Net profit for Q4FY12 rose 12 per cent to ₹45.38 crore (\$8 million) from ₹40.66 crore (\$7.1 million).

Air Cargo Policy to be reviewed on continuous basis

The Ministry of Civil Aviation, Government of India has formed an Inter-Ministerial Air Cargo Logistic Board headed by Secretary, Ministry of Civil Aviation. The Board will lay down the policy guidelines for setting up of air cargo facilities at airports and will also set performance standards relating to the quality of service in the air cargo logistic supply chain. The Board will review, on a continuous basis, the general and sectoral policy regime governing air cargo logistic operations and remove the bottlenecks to efficiency.

MSC deploys 13,092-teu ship on Asia-Europe loop

GENEVA's Mediterranean Shipping Company (MSC), is going to deploy a newly delivered 13,092-teu vessel *MSC Renee* on its Asia-Europe "Lion" service. The "Lion" loop is a joint service with CMA CGM, the world's third largest carrier, which names it "FAL 7".

Shipping Corporation of India posts \$78 million loss

State-owned Shipping Corporation of India lost \$78 million in fiscal 2011-12, compared with a net profit of \$103 million a year earlier. The national ocean carrier's revenue for the year rose 12.5 per cent to \$784 million from \$696 million in 2010-11. "The financial performance is disappointing. The main contributors to the annual loss were much higher bunker costs, which jumped about 90 per cent year-over-year to \$284 million," officials said.

SCI's liner segment suffered a \$57 million operating loss after reporting an \$11.4 million profit in the previous year. Income from liner operations grew 3 per cent to \$214 from \$208 million.

SALVAGE SUPPORT SERVICES FROM BRAEMAR

Braemar Marine Salvage Support Services will provide on-site distressed cargo management and salvage support services to salvors, owners and insurers, together with additional expert technical advisory services from within BTS ranging from resolving LNG operational problems to offshore engineering solutions.

These services will include the subsea searching for, recovering and processing of lost and sunken cargo; the coordination and decontamination of cargo, the disposal of hazardous materials; the provision of SCRs; the supply of expert naval architectural services for vessel damage assessment, re-floating and wreck removal analysis; as well as pollution response, prevention and tank discharging and cleaning prior to salvage.



VOICES

"The committee is inclined to conclude that the Ministry of Shipping has neither seriously planned their projects nor monitored all the ongoing projects to ensure their timely completion."

- Indian Parliamentary Committee on Estimates



The port industry needs to quickly up its game to service the new generation of ultra large containerships (ULCS) being deployed to the world's trade lanes. Productivity will be the battleground for terminal operators.

- Soren Jakobsen

Head of project implementation,
APM Terminals



We have restructured some of our liner services, but we are not very sure that the bulk market will improve. Tanker and offshore division should grow in the coming months.

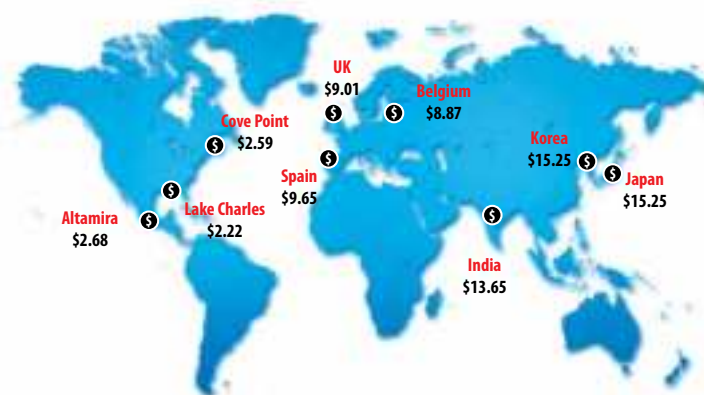
- S Hajara, CMD, SCI

"States are apprehensive about the possibility of revenue loss with the coming of GST. Similar concerns were voiced when VAT was introduced, but the subsequent experience with VAT has dispelled such fears. There may be losses initially, which can be addressed by a compensation mechanism."

- Sushil Kumar Modi

Deputy Chief Minister of Bihar and Chairperson of
Empowered Committee of State Finance Ministers

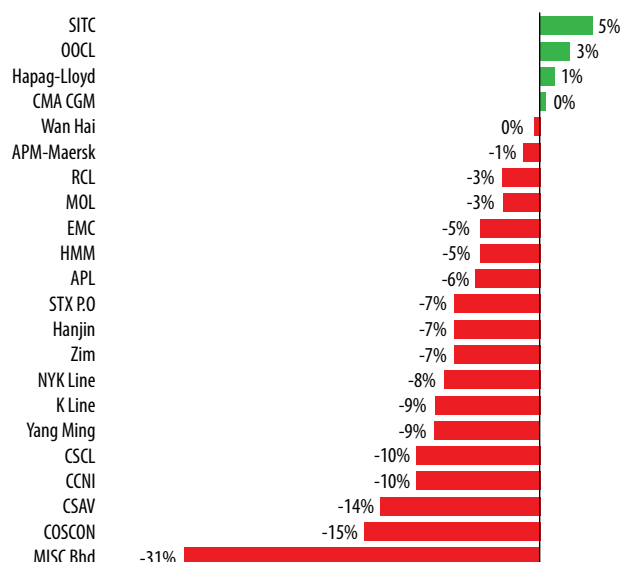
World LNG estimated landed prices: April 2012



Source: US Federal Energy Regulatory Commission

Operating profit margins of major container carriers in 2011

Low freight rates and high costs caused significant loss to operators



World shipbuilding capacity 2011

Shows the CGT output by ship type – World shipbuilding production by country and ship type

Country	Bulker M CGT	Tanker M CGT	Containership M CGT	Gas M CGT	Other M CGT	Grand Total M CGT
China	12.0	3.1	0.9	0.2	3.0	19.2
South Korea	4.4	4.0	4.8	1.0	1.8	16.0
Japan	5.2	2.0	0.4	0.3	1.1	9.0
Philippines	0.7	0.0	0.0	0.0	0.0	0.7
Germany	0.0	0.0	0.0	0.0	0.3	0.4
Taiwan	0.1	0.0	0.2	0.0	0.0	0.4
Vietnam	0.2	0.0	0.0	0.0	0.1	0.4

Indicates market leader in that ship type

ACCELERATING YOUR GROWTH, BY BRINGING OPPORTUNITIES CLOSER HOME.



JAIGARH PORT



- Deep draught of 14 meters berthing capsized gearless vessels • Large back up area for in-transit storage
- All weather 24x7 operations • Strategically located between Mumbai and Goa • Customized handling solutions
- Competitive tariff structure • Environment friendly mechanised handling • Fast turnaround time

TIL's Kamarhati plant completes 50 years



For TIL, 2012 marks the 50th year of TIL's Kamarhati manufacturing plant – a memorable landmark for completing 50 years of Manufacturing Excellence. In 1962, a 10-tonne crane rolled out of TIL's Kamarhati plant. A milestone for TIL (then called Tractors India), as the company, after beginning as a Caterpillar dealer in 1944. It ventured into manufacturing for the first time in 1962. The 10-tonne crane being India's first indigenously built model, the roll out reaffirmed the growing image of Indian engineering capability. On an average, the factory has introduced a new crane model once every 18 months.

Recently the plant rolled out a five-axle truck crane 75 Tonne Truck Mounted crane – indigenously built in a record of 90 days. In the span of 50 years, the Kamarhati plant has been built in different stages. Although there is no linear flow of production due to space constraint, all the elements required for a modern manufacturing facility are in place – latest CNC cutting machines, machining centres, the best welding machines, high quality shot-blasting and paint booths, sensitive testing equipment etc. The productivity has almost doubled over the last 10 years. The Research & Development centre is equipped with

the latest software and technology, enabling the company to provide superior products at a competitive price. It is certified under ISO 9001:2000 and ISO 3834-2 international standards, reinforcing the division's commitment to quality excellence.

Today TIL is a market leader in mobile cranes and commands over 60 per cent market share in Rough Terrain and Truck crane segment. Besides rolling out cranes of various models, TIL plant at Kamarhati is also manufacturing Hyster branded Reachstackers in collaboration with Nacco Materials Handling Group.

BCHAA and Customs hold self-assessment workshop

BCHAA, with the help of the Custom Department, held a self-assessment workshop recently in Mumbai, which was attended by over 200 members. The workshop was attended by all three Chief Commissioners of Mumbai Region Customs. Nailesh Gandhi President of BCHAA made presentation on self-assessment. Anand Sheth Chairman Training Committee of BCHAA thanked Customs Department for supporting various training programmes organised by BCHAA.



New chairman for The Baltic Exchange

The Board of Directors of the Baltic Exchange has elected Quentin Soanes of Braemar Seascope to serve as its Chairman, and Guy Campbell of Clarksons to serve as Vice-Chairman. Quentin Soanes joined the Baltic Board in 2005. He has worked in the shipbroking and shipping services industry since 1977 and currently specialises in sale & purchase. He was a founder shareholder and is a main board director of Braemar Seascope PLC where he is head of business development. He is also Managing Director of Braemar Seascope Ltd. Commenting on his election, Quentin Soanes said:

"The Baltic Exchange is part of an industry facing challenges on a number of fronts. We will continue to support our worldwide membership through these tough times."

ICS elects new Chairman

At its recent Annual General Meeting, the International Chamber of Shipping (ICS) elected a new Chairman, Masamichi Morooka (Japan).



ICS is the principal international trade association for shipowners, with a membership comprising national shipowners' associations from 36 countries representing all sectors and trades and over 80 per cent of the world merchant fleet.

Speaking after his unanimous election, Morooka remarked: "Within ICS there are perhaps three big challenges on which we will need to focus this year: the elimination of piracy; the challenge of reducing CO₂ emissions, and our response to proposals that must be expected from governments following the 'Costa Concordia' cruise ship tragedy."

Cisco Systems optimises its regional distribution through Arshiya's Mumbai FTWZ

Communication and information technology major Cisco Systems Inc., a Fortune 500 company headquartered in US, has commenced regional distribution activities from Arshiya International's Mumbai FTWZ at Panvel, catering to its markets in the Indian subcontinent. Critical network equipment manufactured at Cisco's facilities will be imported through this FTWZ for consumption in India and also for re-export from the subcontinent. Arshiya's FTWZ helps Cisco in optimising its global distribution as previously these components were warehoused and imported for final distribution to Indian as well as subcontinent markets.

The FTWZ will enable Cisco to clear their time-sensitive and critical networking equipment with short turnaround times, crucial for minimising network downtime experienced by Cisco's customers. Further, this will allow them to reduce extra links in the supply chain and improve the distribution efficiency. This is the first time that Cisco has designated a regional distribution centre beyond Singapore in the APAC region. Cisco can now fulfill its global practice of next business day delivery and upkeep the critical network equipment across the country and the region.



Kolkata Port volumes down, Net Profit increases

Kolkata Port net profit has increased 29 per cent to ₹90 crore (\$16.1 million) in 2011-12, compared to ₹70 crore (\$12.5 million) last financial year. Meanwhile, the port has handled 43.25 million tonnes (MT), against 47.5 MT during the last financial year, down about 4 MT.

Kolkata Port is planning to expand its handling capacity to 100 MT by the end of the 12th Five Year Plan. Manish Jain, chairman, KoPT said "This will be through various development projects – including Haldia Dock II North and South, transloading at Sandheads, container terminal at Diamond Harbour and a deep draught port at Sagar – that we have lined up. It may see an overall investment of ₹15,000 crore (\$2.6 billion)," Out of this ₹15,000 crore public private partnership projects, KoPT would be investing about ₹2,500 crore (\$447.4 million). He said that Sagar port is still under consideration of the port and not yet scrapped completely.



Eastern India's First Integrated Logistics park at Haldia (W.B) & Kalinganagar, Jajpur, (Odisha)



**APEEJAY INFRALOGISTICS PVT LTD
&
APEEJAY LOGISTICS PARK PVT LTD.**



World class Infralogistics facility at your doorstep Specialized in providing services in the area of :

- Container Freight Station / Inland Container Depot
- Warehousing facilities for Import, Export, Bonded and Domestic Cargo
- Open storage for Bulk Cargo & Project Cargo
- Clearing & Forwarding Services & Truck Terminals,
- Facility for consolidation / deconsolidation, bagging, packing and re-packing
- Weighbridge, Empty Container yard, Container Repair Facility, advance materials handling equipments
- Facility for stuffing and de-stuffing of containers
- 24x7 Security

Location - Haldia (West Bengal)

- 7 km from Haldia Port
- 140 km from Kolkata
- Located on NH-41 with 140m frontage
- Total area - 90 acres

Location - Kalinganagar, Jajpur (odisha)

- 520 km from Vizag Port
- 390 km from Haldia Port
- 129 km from Paradeep Port
- 120 km from Dhamra Port
- Total area - 30 acres

For further details please contact:

Apeejay Infralogistics Private Limited

Apeejay House, 15 Park Street, Kolkata - 700 016, India
Tel: 91-33-4403 5455 - 58, Fax: 91 33 2217 2075
E-mail: ailpl@apeejaygroup.com
Website: www.ailpl.com

HO Kolkata : Apeejay House, 15 Park Street, Kolkata - 700 016, India
Tel: 91-33-4403 5455 - 58, Fax: 91 33 2217 2075, e-mail: ailpl@apeejaygroup.com

Haldia, (W.B.) : e-mail: cfsheadailphaldia@apeejaygroup.com,
Tel: 03224-284 389,

Kalinganagar Jajpur (Odisha) : e-mail: icdalplkalinganagar@apeejaygroup.com,
Tel: 092381 00332

ClassNK hits 200-million gross tonne record

Leading classification society ClassNK officially announced that its register had surged past the 200-million gross tonne mark on May 28, 2012. ClassNK Chairman and President Noboru Ueda announced the historic achievement at a party celebrating the 50th anniversary of the establishment of the London office, which was attended by many of the leaders of the maritime community, including IMO Secretary General Koji Sekimizu and IMIF Chairman Jim Davis CBE. This unprecedented achievement makes ClassNK the world's first class society in history to have more than 200 million gross tonnes on its register.

Steady market growth for Damco in Q1

Damco continues its growth trajectory in the first quarter of 2012, reporting an 8 per cent increase in both net revenue and gross profit. Damco, the global logistics business unit of the A.P. Moller-Maersk Group, increased its net revenue by \$53 million to \$738 million compared to Q1 of 2011. Gross profit also rose 8 per cent against the same period last year. This result shows that Damco's commercial strategy of increased focus on large and medium-sized customers in selected industry verticals and enhanced local field sales is delivering the expected performance.

Firms halt insurance over fears on Greece

Two of the world's biggest trade insurers said they won't offer new insurance cover for exporters shipping goods to Greece as they find it increasingly difficult to price such cover amid worries that the country may quit the Euro Zone. Credit-export insurance ensures that exporters are paid if their client defaults. The loss of such cover is likely to have a major impact on the willingness of companies to trade with Greece, given the country's deteriorating economy.

Euler Hermes SA, a unit of Germany's Allianz SE, said its management board decided that it won't provide insurance for new exports to Greece "due to the recent economic developments and political uncertainties." The suspension remains in place "until further notice." A company spokeswoman said it would continue to insure exports now en route to Greece and domestic trade within Greece, fulfilling existing contracts.

Earlier, Coface, the credit insurance unit of French investment bank Natixis, said it wouldn't write new insurance contracts for exporters shipping to Greece after finding it harder to recover payments from Greek importers.

Sri Lanka's Chinese-built port opens for business

Sri Lanka's first Chinese-built port, a strong symbol of Beijing's investment in South Asia, opened for international shipping with the handling of 1,000 cars from India. The \$1.5-billion deep-sea port in southern Hambantota, the home constituency of President Mahinda Rajapakse, straddles a major east-west shipping lane used by 200 to 300 international vessels daily.

The idea of the project, which was delayed by just over a year, is to create a new logistics hub to handle

transshipments from the Asian region and provide a boost to Sri Lanka's economy as it recovers from decades of civil war. Chinese firms have pledged investments amounting to \$50 billion spread over the next 10 to 15 years, according to Sri Lanka's trade ministry. The first shipment of cars in Hambantota, 240 km (150 miles) south of Colombo, came from the south Indian port of Chennai and is destined for Algeria.

Source: AFP

Unsold coal cargoes float off China's coast

At least 30 Panamax or Capesize vessels are floating off China's coast because traders who bought them have been unable to resell them to end-users.

The number of vessels that will run on demurrage at the expense of at least 10 Chinese coal traders who bought the cargoes from international trading companies and coal producers from the US, Colombia and Indonesia is expected to increase over the next few weeks, the sources said.

Chinese traders who bought and already paid for the coal from the international shippers and producers are now desperately trying to re-sell the cargoes to Chinese end-users or to other north Asian coal buyers whose company does not require a tender process before it can buy coal cargoes, the industry source said.

Certain Chinese end-users also are still honouring their term contracts with international coal producers, although several of them have notified their shippers to defer the shipping of the cargoes to later months as they want to buy spot cargoes as a strategy in the midst of a continuing slump in international coal prices.

Source: Platts

IFCBA New MD

Shantanu Bhadkamkar, chairman of FFFAI (Federation of Freight Forwarders' Associations in India), has been elected as Managing Director of International Federation of Customs Brokers Association (IFCBA) during IFCBA World Conference held during May 2012 at Greece.

The members of FFFAI will be able to interact with the members of the IFCBA. IFCBA members will share their experience as CHA (Customs House Agent/Customs Broker) in their country and will explain the activities of IFCBA.



SLOWDOWN CONTAINS CARGO MOVEMENT AT MAJOR PORTS

Commodity	Apr-May (million tonnes)		Growth%
	2011	2012	
POL	31.7		10.88
	29.58		-6.64
Iron ore	14.90		-15.61
	10.55		-29.20
Fertilisers (Finished)	0.97		-43.29
	0.78		-19.71
(Raw)	1.28		51.9
	0.84		-34.58
Coal (Thermal)	7.95		18.29
	9.64		21.28
(Coking)	5.75		5.74
	4.87		-15.32
Containerised	19.87		6.19
	20.32		2.26
Other cargo	17.35		5.69
	17.49		0.84
Total	99.75		5.10
	94.06		-5.7

Source: Indian Ports Association: Pol: Petroleum Oil and Lubricants

Gujarat Maritime Board to woo investors for ferry service

Gujarat Maritime Board will woo foreign investors and operators for country's first major ferry service for vehicles, cargo and passengers across the Gulf of Cambay in Gujarat. The construction of the terminals is already on and the board is now scouting for companies to operate the service. It is looking at companies from Europe, the US, Singapore, Malaysia, Hong Kong and Australia.

We expect to get Expression of Interest from close to 40 investors. Construction of terminals at Ghogha (Saurashtra) and Dahej (south Gujarat) is likely to be completed in about 18 months. By that time we want to finalise the operators so that they can buy ferries and the service can be rolled out on time," says GMB Vice Chairman Pankajkumar.

London-based consultant Beckett Rankine's India head Siddharth Shah said this is first of its kind of project in India so care is being taken at each stage. "We are also exploring the possibilities of a joint venture between Indian companies in the port and shipping sector as well as foreign companies with firsthand experience in operating ferry service. We will be approaching Essar Shipping, GVK, Adani Group, Tatas and a few others for the operations.

According to a study by Beckett Rankine, 1,059 cars, 777 buses, 367 light commercial vehicles, 2,018 trucks and 444 multi-axle vehicles plied daily between south Gujarat and Saurashtra in November 2008. This could be tapped for ro-ro service. The time for the journey will be reduced from over seven hours to one and a half hours and the distance can be reduced by about 300 km. The project is taken up on Public Private Partnership (PPP) mode, modelled along the air traffic. The terminals will be handed over to and managed by Gujarat Maritime Board, while the ferry services will be provided by private operators.

Panel raps shipping ministry for slow execution of projects

A Parliamentary committee has slammed the shipping ministry for spending only about 13 per cent of the ₹1-lakh crore (\$17.8 billion) outlay for the port sector during the Eleventh Plan (2007-12), and has termed the situation "alarming". "The ministry has been able to spend only 12.88 per cent out of the total projected outlay of ₹1,00,399 crore (\$17.9 billion) provided for the port sector during the entire Eleventh Plan." The situation is alarming as the ministry has miserably failed to perform both financially and physically," the panel has said in its report.

Status report sought

Even if the envisaged expenditure for the ongoing projects is taken into account, the percentage of utilisation of outlays comes out to be only 46.18 per cent, the Committee on Estimates, chaired by Francisco Sardinha, said. Observing that the progress made in the implementation of various projects under the National Maritime Development Programme (NMDP) is far from satisfactory, it has sought the status of incomplete projects and reasons behind delays.

"The committee is inclined to conclude that the ministry has neither seriously planned their projects nor monitored all the ongoing projects to ensure their timely completion." NMDP was launched as the flagship programme in 2009 that aimed at large-scale infrastructure development in all the major ports and their capacity



expansion by 2012. As much as 276 projects were planned under it, but the pace of execution has been very slow.

New policy

Meanwhile, the shipping ministry last year unveiled a new policy for the sector that entails an investment of ₹3 lakh crore by 2020 to take the ports' capacity to 3,200 mt and bring in major reforms in the space.

Unveiling the agenda, the Shipping Minister, G K Vasan, has said that the NMDP will be replaced with the new agenda.

Three out of 23

Of the 276 projects identified under the NMDP through public-private partnership (PPP) mode, the government had planned to award 23 projects entailing cost of ₹16,744 crore (\$2.9 billion) last year. However, it could award only three projects worth ₹8,000 crore (\$1.4 billion) out of the 23 during last fiscal. Taking note of the slow progress, the Prime Minister's Office in April had directed fast-tracking of delayed projects.

Source: PTI

GMB has identified four routes for to-and-fro ferry service. In the first phase Gogha in Bhavnagar will be connected with Dahej in Bharuch with an estimated investment of ₹296 crore (\$52.9 million). In subsequent phases, it will connect Mundra (Kutch), Okha, Porbandar, Pipavav (all Saurashtra), Hazira-Suvali (south Gujarat) and Mumbai.

Similar ferry service is operational in Dover (England) to Calais (France) across the channel. About 8-10 ferries are operated daily. Other places where such a service is operational include Baltic Sea, Mediterranean Sea, Singapore, Malaysia, Hong Kong and Australia.

Shell, R-Power plan floating an LNG plant off AP coast

Anglo-Dutch energy major Shell and Anil Ambani's Reliance Power announced plans to jointly set up a floating facility to import gas in ships off the coast of Kakinada in Andhra Pradesh by 2014. State-run gas utility GAIL too is working on a similar plan with GDF Suez of France. But the Shell-Reliance Power combine could have an advantage as it has also roped in the Kakinada Port which could limit GAIL's access to landfall point for connecting its floating facility to Mukesh Ambani's pipeline for transporting gas.

Both Shell and Reliance Power said they would be setting up the project with a capacity to regasify 5 mt of liquid gas (LNG or liquefied natural gas) a year and could be easily ramped up to 10 mt later. The Kakinada LNG terminal would allow Shell to tap into a market created in the wake of supply gap left by declining output from Reliance Industries' field in the Krishna-Godavari basin. For Reliance Power, part-ownership in an LNG facility would ensure fuel supply to its gas-fired power project at Samalkot in the state.

"Kakinada, with its proximity to our Samalkot power plant and several other gas consumers, is a natural choice for setting up an LNG terminal. The LNG receiving terminal in AP is of strategic importance to Andhra Pradesh and India. We believe Shell, with its large LNG portfolio and experience in operating LNG terminals, will add immense value to the project," Reliance Power CEO J P Chalasani said.

JNPT Contract with DBC is valid

In response to a news item published in these columns, DBC Port Logistics has denied the report of JNPT terminating its contract. The company clarified that it has not received any such notice or intimation from JNPT Port and the contract was very much valid and operational.

Wärtsilä dual-fuel technology now the choice of 100 LNG carriers

Wärtsilä, the marine industry's leading solutions provider, has now been contracted to supply Wärtsilä 50DF dual-fuel propulsion engines to 100 Liquefied Natural Gas (LNG) carrier vessels. This notable milestone was recently passed with the supply of a LNG carrier in a South Korean shipyard. The 100 LNG carriers represent approximately one-quarter of the current global fleet.

The fitting of Wärtsilä 50DF engines onboard the first LNG carriers in 2006 set a trend in the industry. Since that introduction, 65 per cent of all new LNG carriers have been fitted with Wärtsilä dual-fuel engines. One of the reasons for the strong success of this particular engine over the alternatives is its superior propulsion efficiency. The clear environmental advantages that operating on gas allows, is another factor in the success of this technology. When operating in gas mode, the nitrogen oxide (NOx) emissions are at least 85 per cent below those specified in the current IMO regulations, and CO₂ emissions are some 25 per cent less than those of a conventional marine engine running on diesel fuel.

TVS Dynamic goes live with Logi-Sys in record time

Softlink announced that TVS Dynamic Global Freight Services, a part of the highly respected TVS Logistics & TVS Group, has successfully implemented its Logi-Sys. TVS Dynamic Global Freight Services has decided to implement the feature-rich software Logi-sys in keeping with its policy of making technology the backbone of strategy, planning and execution.

TVS Dynamic selected Logi-Sys from among the number of software available in the market, after subjecting them to stringent evaluation process. The highlight of the software deployment was the implementation of Logi-Sys with

Bharati Shipyard FY 2011-12 net falls over 94%

Bharati Shipyard (BSL), the country's second-biggest private shipyard, has reported more than 94 per cent fall in net profit in 2011-12 fiscal hit by higher interest costs outgo and lower sales. The company reported net profit of ₹5.95 crore (\$1 million) against ₹113 crore (\$20.2 million) a year ago. Its net sales fell by 20 per cent during the fiscal to ₹1,102 crore (\$177.2 million), while interest burden surged 84 per cent to ₹490 crore (\$80.7 million).

NTPC plans \$15-bn coal import contract

NTPC Ltd, India's biggest power producer, said it plans to spend as much as ₹82,521 crore (\$15 billion) over a decade to secure overseas coal supplies as prices of the fuel tumble to a 19-month low. The utility may sign five- or 10-year contracts for the first time to import as much as 150 mmt of coal, Chairman Arup Roy Choudhury said.

Customs green signal for Kattupalli Port

The Department of Customs has declared Kattupalli minor port as a 'Customs Area'. This paves the way for the port, which is operated by L&T Shipbuilding Ltd, to start container terminal operations.

record time which was completed within 30 (50) days. The company deployed the logistics management software to support its on-going investments in integration of operations and enhancing customer service. TVS Dynamic intends to leverage the functionalities of Logi-Sys for strategic planning and resource management as cost-effectively as possible across its branches. With the Logi-sys solution branch managers can now know the complete operational information of the enterprise. With this insight, they can make more informed decisions in order to deliver the high-level of service their customers expect and deserve.

Essar Oil completes optimisation project; capacity increased to 20 mmtpa



Essar Oil, India's second largest private refiner, has completed its Optimisation Project, which has taken the capacity of its Vadinar Refinery in Gujarat to 20 million metric tonnes per annum (mmtpa), or 405,000 barrels per day. The Optimisation Project has been completed four months ahead of schedule. Essar Oil had completed the Refinery Expansion Project to raise its nameplate capacity to 18 mmtpa from 10.5 mmtpa on March 29, 2012 with an investment of ₹9,100 crore (\$1.6 billion). For Optimisation Project, Essar Oil has invested an additional ₹1,700 crore (\$304 million), taking the total investment at Vadinar Refinery to approximately ₹24,000 crore (\$4.2 billion). The company now accounts for about 10 per cent of India's total refining capacity.

"We are very happy to announce the completion of our Optimisation Project much ahead of schedule. This is a testimony to the untiring commitment of the Essar Oil team as well as teams from other Essar Group companies who worked seamlessly under highly demanding conditions. With this commissioning, our capex cycle has

now come to an end and we are fully geared to deliver the value of our investments to all our stakeholders," said Lalit Gupta, MD & CEO, Essar Oil.

Under the Optimisation Project, Visbreaker Unit has been converted into Crude Distillate Unit to process ultra heavy / tough crude on standalone basis, which will drive significant improvement in economics. Secondary units required to support additional throughput along with other supporting infrastructure (pipelines, tankages, blending facility etc.) are also completed as a part of Optimisation Project.

Bulk volumes under stress

Gujarat ports will be facing thin bulk volumes for the next 3-6 months as power plants in that region, foreseeing reduction in load factors, are importing less coal. Increase in freight rates by Railways also affected the traffic. Bulk cargo refers to the dry cargo such as iron and coal which is not transported in containers.

Bilateral talks on Shipping Sector

The Shipping Corporation of India Limited (SCI) along with three Japanese Shipping lines Mitsui O.S.K. Lines Limited (MOL), Nippon Yusen Kabushiki Kaisha (NYK) and Kawasaki Kisen Kaisha Limited (K-Line) formed a consortium for establishing three Joint Venture Companies at Malta for the construction, ownership and operation of Liquefied Natural Gas tankers each. For operating container services in the East Coast sector, SCI has necessary tie-up with various reputed foreign shipping lines including K-line of Japan.

The Minister of Land, Infrastructure, Transport and Tourism, Government of Japan during his visit to New Delhi, met the Minister of Shipping on January 12, 2012 and held preliminary discussions on infrastructure development, i.e. construction of new berths, terminals and creation of other facilities in Chennai and Ennore ports.

Steel companies forced to import iron ore

Faced with dwindling supplies and a country-wide clampdown on ore production due to illegal mining, steel companies are doing the unthinkable – importing iron ore to feed their plants. The imports, a trickle now, but which experts warn could easily turn into a torrent, threaten to increase India's dependence on overseas supplies of crucial mineral resources it owns in abundance.

Shipping industry and port officials in Paradip say another 150,000 tonnes of ore imports are expected soon to feed the state's ravenous steel mills. Bhushan Power & Steel has also been importing pellets from Bahrain and Ukraine. Essar Steel, another steelmaker feeling the brunt of an acute shortage of the critical ferrous input, has been importing ore for the past few months, but on the western coast.

Chennai Port expressway to be delayed

The uncertainty over the Chennai Port-Maduravoyal elevated high road project is not likely to end anytime soon. The National Highways Authority of India (NHAI)'s technical justification note is reportedly countering the state government's arguments on the alleged deviations in the project's alignment. The developments after two months of stoppage point to a further delay and if the bottlenecks are not cleared before the monsoon, the project could be delayed by another year. On March 29, the state government's Water Resources Department (WRD) asked the NHAI to stop work on the ₹1,815-crore (\$324 million) project, after it reportedly found that the project had obstructed the free flow of water in the Cooum River.

Work on the 18.3-km expressway, envisaged to become the lifeline of the Chennai Port, was designed to connect the port and Maduravoyal, which provides a link to the industrial corridor. Almost 30 per cent of the project had been completed and ₹500 crore (\$89.5 million) were already spent when the state government stopped the project.

Oman's oil exports to India drop 88% in Q1



Indian imports of Oman's crude oil dropped 88.1 per cent in the first quarter of 2012, compared to the same period last year, as India increased imports from Iran, a news report has said. First-quarter oil exports to India, which was not a traditional buyer of Omani oil until last year, fell from 15.1 million barrels in 2011 to 1.8 million barrels in 2012.

Arshiya inks game-changing deal with GATX



In a landmark tie-up, Arshiya Rail Infrastructure Ltd ("ARIL"), part of Arshiya International Ltd, has signed a long-term deal with GATX India Private Limited ("GIPL"), a subsidiary of GATX Corporation, to lease its rakes to ARIL. GATX is one of the world's leading railcar leasing companies. This relationship will help Arshiya Rail migrate its business to a capex lean model, resulting in lower gearing and improved margins as ARIL expands its business. As part of the 10-year deal, GIPL will initially provide 10 newly manufactured BLC rakes, for Arshiya Rail on operating lease.

Further leveraging GATX's 114 years of expertise, ARIL will be able to introduce world-class wagon technology and bring in the highest standards of safety, reliability, efficiency in rake operations, besides expanding its gamut of services in delivery of customised solutions to clients, all vital to growing the Indian rail-freight business. An augmented rail capacity through its relationship with GIPL is planned to be deployed at its new state-of-the-art rail terminal at Khurja, which will act as a hub and will offer integrated and cost-effective solution to its customers across major Indian cities.

Posco plans \$1.5 b capacity expansion in Maharashtra



South Korean steel major Posco plans to invest \$1.5 billion to expand capacity at its steel reprocessing facility in Maharashtra. It will reprocess Austenitic and Cold Rolled stainless steel at the facility at Vile-Bhagad and Palasgaon industrial area in Raigad district.

The facility is about 140 km from Mumbai and about 97 km from Dighi Port on the west coast. Posco has constructed a warehouse at the port. The warehouse has a capacity to handle 360,000 tonnes of steel products a year.

Wärtsilä Hamworthy wins major gas contract



Wärtsilä Hamworthy, the global leader in environmental and liquid cargo handling solutions for the marine and oil & gas markets, has underscored its technical prowess in the offshore sector by winning the contract from Brazilian shipyard Ecovix-Engenvix Construções Oceânicas S.A. to deliver Inert Gas Generator units to eight floating production, storage and offloading vessels (FPSOs) in the Santos Basin.

Six of the units will be deployed for the Tupi fields with the other two being utilised for the Guarã field. The first two units will undergo full scale testing at the factory in Moss prior to delivery starting as soon as the end of December this year, up to the end of January 2015.



Earnings through inland waterways double



Earnings through inland waterways have registered an increase of over 100 per cent since the last three years with a consistent rise in the cargo transported each year. In 2011-12, the earnings through three waterways were ₹432 lakh (\$773,000), compared to ₹186 lakh (\$330,000) in the previous fiscal. Similarly, the cargo carried was 74.46 lakh metric tonnes in 2011-12 as compared to 49.21 lakh metric tonnes in the previous year. Cargoes transported through these waterways include cement, wooden logs, packed and bulk edible oil, POL, stone chips, iron & steel, food grains, coal, plant & machineries, diesel, chemicals, water, lime shell and over dimensional cargoes.

IBIA announces Vice Chairman for 2012



The International Bunker Industry Association's (IBIA) board of directors has unanimously agreed to appoint Simon Neo Tiau Gee as Vice-Chairman and Dilip Mody as Honorary Treasurer for 2012 to 2013.

Adani Enterprises' consolidated income up



Adani Enterprises Ltd announced its results for the financial year and Q4 ended March 31, 2012. Consolidated income increased by 49 per cent to ₹39,356 crore (\$7 billion), against ₹26,405 crore (\$4.7 billion) in the previous year.

Adani Enterprises maintained leadership position by importing 36 million metric tonnes of coal and captured 50 per cent market share in FY12. Mundra Port has emerged as the fourth largest commercial port in India. The company has successfully completed re-financing of \$2 billion for Abbot Point Coal Terminal in Australia. It also received a letter of intent to set up a dry bulk terminal at Kandla Port.



- Fleet Owners, Operators & Logistic providers approved by IBA
- Own fleet of over 580 vehicles and growing
- Another 1000 attached vehicles and market vehicles being plied regularly
- Import services including clearing
- Door to door services from the manufacturer anywhere on the globe upto your project site/plant
- Specialists in handling Project Cargo
- ODC is our speciality. Own Volvo vehicles with hydraulic axles.



**VENKATESH
LOGISTICS**

**VENKATESH
LOGISTICS PVT. LTD.**

IDEAL CENTRE, 3rd Floor, 9, A. J. C. Bose Road, Kolkata - 700 017, India.
Ph : +91 33 4064 8050, +91 33 4064 8183, Fax : +91 33 4064 8183
e-mail : customercare@vlpl.in

www.vlpl.in





Look East Policy to drive AP Ports' growth

Ports in Andhra Pradesh are set to benefit as trade grows between India and South Asian countries, especially China, amidst a western economic downturn.

Sreekala G

Eastern ports in India are set to grow with China overtaking the US to become India's largest trading partner. This will be a major boost for ports in Andhra Pradesh and they are busy lining up expansion plans and investments to grab this opportunity. The two-way trade between India and China reached \$74 billion in 2011 and now both the countries are targeting this to grow to \$100 billion by 2015.

"Location is the advantage enjoyed by ports in Andhra Pradesh like Visakhapatnam, Kakinada, Krishnapatnam and Gangavaram. If not conveniently located to exim trade, they can never replace other traditional east coast ports," says Bill Smart, managing director, Bengal Tiger Line.

Traditionally, ports on the country's west coast handled at least twice the container traffic as against those on the east coast, which include six major ports and seven private ports. The trend is expected to change as India's trade with Asian nations is growing faster than that with the western nations. The macroeconomic problems that Europe and the US are facing have also contributed to this change.

According to a report by consulting firm KPMG, western ports' share of capacity is estimated to drop to 66 per cent in 2014 compared to 77 per cent in fiscal 2010 while the share of eastern ports will rise by as much as 11 percentage points in the same period to 34 per cent.

"Ports on east coast, especially those in Andhra Pradesh, will see a huge growth in cargo volume due to the country's 'Look East Policy.' Our Free trade agreements with Association of South East Asian Nations (ASEAN), Japan and Afghanistan will benefit these ports. Besides, we are also in discussions with Australia for FTA. East coast ports majorly support energy cargo including crude oil, LPG and coal.

Advantage AP Ports

- Look east policy
- Short transit time from Southeast Asian countries
- Large number of power plants driving coal imports
- PCPIR and SEZs near ports
- Aggressive capacity additions by both major and private ports.

Indonesia and Australia are the largest exporters of coal to India and ports in AP are in a position to handle that," says Capt. Sriram Ravi Chander, chief operating officer, Visakha Container Terminal (VCTPL).

Ships coming from China can save up to six days by calling at the ports located on east coast as against those in west coast. The transit time to east coast ports in India from China is 22 days.

The demand for coal for power projects in eastern India is expected to keep AP ports busier. "Estimates suggest that India may need to import about 150 million tonnes (mt) of coal a year by 2015. With the rail connectivity improving, a lot of this coal can be routed through eastern ports. This can then be moved by train to the hinterland. Andhra Pradesh will hugely benefit as we already have some of the leading ports in the country like Visakhapatnam, which is the second largest port in the country in terms of cargo volume," says an Andhra Pradesh government official.

Considered to be the second-highest cargo handling state in the country and bestowed with the second largest coastline of 970 km, Andhra Pradesh owes a significant slice of its



IN 2011, VCTPL SAW A GROWTH OF 60% IN CONTAINERISED CARGO

economic growth to its ports. Apart from Visakhapatnam Port, the state is also home to the deepest draft port, Krishnapatnam. Besides, Andhra Pradesh has two operational non-major ports – Kakinada and Gangavaram.

In 2011-12 Visakhapatnam Port handled 67.41 mt of cargo as against 68.04 mt in the previous year. The port officials attribute this marginal fall in cargo handling to dislocation caused by ongoing expansion work and fall in iron ore exports. According to deputy chairman of Visakhapatnam Port Trust GVL Satya Kumar, the port is targeting to handle 110-120 mt by 2013-14.

During the year, the port handled 16.07 mt of iron ore, and the exports amounted to 26.6 mt, the imports 36.4 mt and the transshipment cargo 4.4 mt.

This shift in trade trends will also help infrastructure development of the ports on the east coast besides the growth of special economic zone. The ports on the east coast are more developed than the western ones, more so in terms of rail and road connectivity.

The Visakhapatnam Port for instance has the largest rail network in the country. The port trust has taken up an ambitious project to mechanise and modernise the port with an investment of ₹3,000 crore (\$537 million). During the Twelfth Plan, the port is estimated to invest ₹ 8,231 crore (\$1.4 billion) with private participation amounting to 55 per cent. Several works are underway for deepening of channels, construction of new berths, mechanised handling for coal, iron ore and other cargoes and

improvement in logistics.

Container Corporation of India (CONCOR) has set up an inland container depot (ICD) catering to the hinterland of Visakhapatnam Port. The port also houses the country's first private container freight station by Sravan Shipping besides two others run by CONCOR.

However, during the last few years, like other government-owned major ports, the Visakhapatnam Port is also facing stiff competition from the private players like Krishnapatnam and Gangavaram. The Vizag Port has also seen some diversion of coking coal traffic and other bulk commodities on economic considerations to the neighbouring private ports like Krishnapatnam and Gangavaram. The port has been unable to develop stacking areas adjacent to cargo handling areas due to land acquisition issues and environmental considerations. This affected the efficiency of the port.

The cargo handled by the port includes crude oil and petroleum products, iron ore, coal, fertilisers, steel cargo and containers. It is expecting major growth for commodities like iron ore, crude oil and petroleum products, thermal coal, coking coal and steam coal.

“Visakhapatnam Port is well connected with northern hinterland. We also expect this to become an alternative gateway for cargo from Nepal,” says Ravi Chander.

Containerised cargo at VCTPL also witnessed about 60 per cent growth

in Visakhapatnam Port in 2011-12. “VCTPL handled 2,34,733 teu in 2011-12. We expect this to increase to 3 million teu in the next five years. There is no dearth of commodities that can be containerised. It makes sense to containerise commodities like coal and iron ore as it is more environment-friendly,” he says.

While the competition heats up, geographical advantages can play a major role in the growth of ports. According to state government estimates, the Visakhapatnam-Kakinada zone is set to witness a sea change in the future, in terms of infrastructure development and industrialisation. The two ports – Visakhapatnam and Kakinada – besides Gangavaram Port, are expected to stimulate growth in this area and attract investment on a large scale.

“East coast region in the country from Bihar to Tamil Nadu is witnessing fast-paced industrial growth. Odisha, Andhra Pradesh and Chhattisgarh are the major mineral-rich states in the country. Northern AP region is home to many refractory units and ferro alloy units. We are also moving up the supply chain from commodity to finished goods as many steel and aluminum plants like Vedanta, Jindal, National Aluminium Company (NALCO) are coming up in the eastern region. Even two petroleum, chemicals and petro-chemicals investment regions (PCPIR) are coming up – one in Andhra Pradesh and another in West Bengal and this will be a big boost to the trade through AP ports,” says Ravi Chander.

The pace with which the region is growing in terms of trade and infrastructure can be well understood if one observes the growth in the annual earnings of Vijayawada division of South Central Railway. It has gone up by 14.34 per cent to ₹2,291.19 crore (\$358.7 million) this year as against ₹2,003.88 crore (\$358.7 million) last year. Official records suggest that Kakinada and Krishnapatnam ports are major contributors in goods earnings, having a collective share of 75 per cent. The growth in goods transportation was mainly due to coal, fertilisers and other port-based loadings from Krishnapatnam and Kakinada ports.

There are several major SEZs in the zone, such as the multi-product SEZ at Atchyuthapuram in Visakhapatnam

Ports in AP at a glance



Operational Ports

Visakhapatnam, Krishnapatnam, Kakinada, Gangavaram

These ports provide short and more convenient route to Southeast Asia. Currently all the ports are on the expansion mode as India-China trade is set to grow. At present, the state of Andhra Pradesh is in the second place in terms of cargo handling and has set a goal of handling 200 mmtpa by 2020.



GANGAVARAM PORT

Promoter: DVS Raju

Location: Latitude 17° 37' N; Longitude 83° 14' E
(15 kms south of Visakhapatnam Port)

Draft: 18 metres

Berths in Operation: 5

Connectivity: 4-lane expressway of 3.8 km connects the port to NH-5 (Chennai - Kolkata)

Expansion: 4 berths (coal 1; multipurpose 3)

Cargo Capacity: 16.54 mmtpa **Targeted:** 45 mmtpa

Area: 1,800 acres

Key Features: Petronet LNG is setting up a 5-mtpa LNG terminal



VISAKHAPATNAM PORT

Location: Latitude 17° 41' N; Longitude 83° 17' E

Draft: Inner Harbour 11 metres; Outer Harbour 17 metres

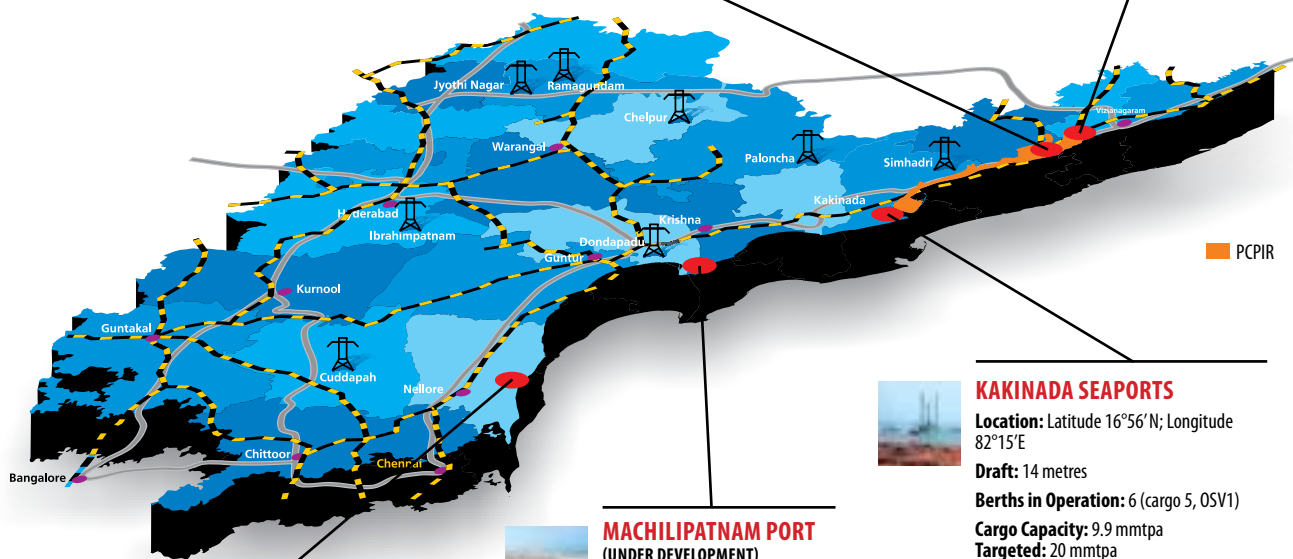
Berths in Operation: Inner Harbour 06; Outer Harbour: 18

Cargo Capacity: 67.41 mmtpa **Targeted:** 110 mmtpa

Estimated Cost for Expansion: ₹2,385 crore (\$427 million)

Area: 10,788 acres

Key Features: Second largest port by cargo handling; Good rail, road connectivity



KRISHNAPATNAM PORT

Promoter: CVR Group

Location: Latitude 14° 15' N; Longitude 80° 08' E
(180 km north of Chennai)

Draft: 18 metres

Berths in Operation: 10 multipurpose; 2 under construction

Cargo Capacity: 35 mmtpa **Targeted:** 200 mmtpa

Connectivity: Dedicated 19 km railway line connecting the Chennai-Kolkata main line. Dedicated 26 km four-lane road connecting NH-5

Total Investment: \$4 billion

Berths after expansion: 42

Area: 6,800 acres

Key Features: Deepest draft in the country; Coal hub; Set up container terminal with 1.2-million teu capacity in Phase 1; tied-up with CONCOR to develop rail infrastructure



MACHILIPATNAM PORT (UNDER DEVELOPMENT)

Promoter: CVR Group

Location: Latitude 15° 57' N; Longitude 81° 13' E

Total No. of Berths: 30

Cargo Capacity: 35 mtpa (Phase I)

Investment: ₹5,000 crore (\$895.5 million) (Phase I)

Area: 5,324 acres



KAKINADA SEAPORTS

Location: Latitude 16° 56' N; Longitude 82° 15' E

Draft: 14 metres

Berths in Operation: 6 (cargo 5, OSV1)

Cargo Capacity: 9.9 mmtpa **Targeted:** 20 mmtpa

Investment for expansion: ₹800 crore (\$143.2 million)

Expansion: 2 berths

Key Features: Shore supply support base for K-G Basin; Shipyard is planned in association with Singapore based Sembawang Shipyard; Reliance and Shell to build LNG facility

district and the Kakinada special economic zone (KSEZ). Pharmaceutical industries including a pharma SEZ is also functional in Visakhapatnam.

The PCPIR, spread across an area of 603.58 sq km, is expected to play a decisive role in the growth of cargo in Vizag, Kakinada and Gangavaram ports. Initial hiccups notwithstanding, the Andhra Pradesh government has tied up with Kuwait-based Al Qebala Al Watya Inc's group company for establishment of a refinery project in PCPIR. Besides, GMR Holdings Private Limited will set up a 15 million tonnes per annum greenfield refinery-cum-petrochemicals complex in Kakinada. BR Shetty and Group has also inked an agreement to set up a refinery in the PCPIR.

There is already a frenzy of infrastructure developments projects connecting PCPIR and ports. Work has already started to develop the existing four-lane NH-16 between Visakhapatnam and Rajahmundry into a six-lane road, in addition to the conversion of the existing 52-km two-lane road from Annavaram to Kakinada into a four-lane road. This road links the Kakinada Port with NH-16. A 138-km long coastal corridor connecting Gangavaram Port with Kakinada Port is also being planned.

Another factor that would drive the trade growth through ports is the presence of a large number of power plants in nearby areas. In Andhra Pradesh energy needs of the state is met mostly through thermal power plants, which use coal, oil and gas as raw material. The coal consumption rate for generating power depends on ash content, and volatile matter content. For Indian coal with 42 per cent ash content and 12 per cent volatile matter, the rate is 350 mt/hr of coal for a 500 megawatt (MW) unit. This figure may also vary depending on the capacity of unit.

NTPC's 2,600-MW power plant in Ramagundam is one of the biggest plants in the state. Coal from coalfields of Godavari and Korba is used as fuel in this plant. NTPC's another coal fired plant in Simhadri in Visakhapatnam has two units of 500 MW capacity each.

APGenco's Kothagudem Thermal Power Station is based on coal and has an installed capacity of 1,680 MW.

APGenco's Vijayawada Thermal Power Plant that run on coal was

developed in four stages. It has an installed capacity of 1,260 MW. Developed in two stages, APGenco's coal-based Kakatiya Thermal Power Station has an installed capacity of 500 MW and 84 MW each.

Apart from these established thermal power plants, many others are coming up in Visakhapatnam, East Godavari and Srikakulam districts with an installed capacity of over 2,500 MW. Mostly based on coal, these plants would drive up volumes of coal imports and thereby trade through ports in Visakhapatnam, Gangavaram and Kakinada.

Private players are also gearing up to improve connectivity and upgrade infrastructure. While rice exports from agricultural regions in East and West Godavari and Krishna region, were the mainstay of Kakinada old port, the new private initiative – Kakinada Seaports Limited (KSL) – is set to add capacity to handle various other commodities. The Kakinada deep-water port, with four berths, handles iron ore, granite, fertilisers and edible oils.

Decks cleared for new private port

With the Andhra Pradesh government giving its nod for land allotment in May this year, decks have been cleared for another private port to be set up in Machilipatnam. The Navayuga Group, a leading infrastructure firm, which is also the operator of Krishnapatnam Port, was selected for the development of the port project in 2010.

The Port has been designed to have 30 berths with a total cargo handling capacity of 200 million tonne per annum (mtpa). It would have four terminals with a cargo handling capacity of about 35 mtpa with an outlay of ₹5,000 crore (\$895.5 million) in the first phase.

According to the state infrastructure and investment department, the government has fixed the land requirement of the port as 5,324 acres, of which 4,800 acres would be utilised for the port, and the remaining for public utilities.

The National Highway 9 that connects Machilipatnam with Pune passes through major cities of the state like Hyderabad and Vijayawada. Navayuga also has plans to revive the rail link to Machilipatnam Port connecting Nagpur, Bhopal and other places, without touching the main line at Vijayawada.

It has several advantages in its favour including a natural breakwater, a draft of 14 metres, proximity of the Krishna-Godavari offshore oil field, good connectivity, massive back-up area and a fast growing industrial base in its neighborhood. It is a convenient shore supply support base for the offshore Krishna-Godavari Basin exploration where India's biggest natural gas reserves are based. KSL provides critical support services for offshore supply vessels of companies including ONGC, Reliance, GSPC, Transocean, Cairn and Hercules. On an average, the port attends to 1,300 offshore calls each year.

The port is building a fifth berth. Its coal handling facility is being mechanised and it has undertaken reclamation of 110 acres for the back-up area. The port expects the mechanisation of fertiliser handling to be completed in 2013.

"We are increasing our draft to accommodate capesize vessels. We are also enhancing connectivity and the existing railway line connecting the rail head is being doubled up. Currently, we handle an average 5-7 rakes a day and this will reach 10-11 after the expansion, which will be completed in 18 months. We will increase our installed capacity from 15 mt to 25 mt in five years. We expects to witness about 20-30 per cent growth in cargo handling this year from 9.97 mt in 2011-12," says an official of KSL.

Another port that is making waves is Krishnapatnam. Due to its strategic location, the port offers an alternative to Chennai Port, which is reeling under congestion, yard delay and trucking problems amidst surging traffic volume. The Krishnapatnam Port, which is about 190 km from Chennai offers good infrastructure and gives the city-based manufacturers another option to export their goods from a new venue instead of depending solely on Chennai Port.

Described as an all-weather port with no tidal restrictions, Krishnapatnam Port Container Terminal has a capacity to handle 1.2 million twenty-foot equivalent units of containers in the first phase. It has a 19-km railway line connecting the port to Chennai-Kolkata main line, ready infrastructure and commissionerate to clear cargoes. The port aims to become a southern gateway.



DEVELOPMENT OF PCPIR AND PRESENCE OF LARGE NUMBER OF POWER PLANTS WOULD DRIVE CARGO GROWTH

Trade through Chennai Port has been suffering off late due to congestion issues associated with surcharges. The delay due to congestion at Chennai Port has not only inflated exporters' bills but also sent their production schedule for a toss. Exporters reckon that while it takes more than a day to reach Chennai Port zero gate from Ernavur bridge, which is 9 km away, it would take only about four hours to reach Krishnapatnam.

Krishnapatnam is expected to become a major coal hub of India, with a total of 16,000 MW installed capacity within 7-8 km radius of the port. It is also expected to meet the palm oil needs of the eight thermal power plants and seven edible oil refineries in the nearby areas. While coal comes from Australia and Indonesia, palm oil comes from Indonesia and Malaysia. It handled over 15 mt (import and export) of cargo in 2011-12.

"We will be able to handle container cargo in a month or two. Coal is our mainstay and we handled about 12 mt of it this year. We expect coal cargo volume to reach 20 mt in two years. We aim to reach at an installed capacity of 200 mt by 2016," says Anil Yendluri, CEO, Krishnapatnam Port Company Ltd.

He expects a huge growth in container cargo from India and that should reflect in AP ports also. "India's container traffic is about 3 per cent of the total cargo volume whereas in advanced nations it is about 8 per cent. All ports in the country together handle

about 8-9 mt of containerised cargo and the scope of growth is tremendous," says Yendluri.

The port has taken measures to improve hinterland connectivity. It has good road and rail connectivity to NH-5 and a broad-gauge rail line, both linking Chennai to Howrah. It has also signed an agreement with CONCOR for the movement of container traffic from the east coast port in Nellore district of Andhra Pradesh to the hinterland, which will be completed in six months. "Our aim is to increase connectivity from 15 trains a day to 40 trains in the future," says the official. Both the companies will also develop container freight station at the port and inland container depots in the hinterland.

It is learnt that Gangavaram Port, which has the advantage of being a greenfield port, handled a throughput of 14 mt during 2011-12 as against 13.93 mt last year. It handled 9.5 mt of coal, 2.14 mt of iron ore and 1.91 mt of other cargo during 2011-12. In the previous year, it handled 9.52 mt of coal, 2.58 mt of iron ore and 1.83 mt of other cargo. While the marginal drop in cargo was attributed to the unprecedented decline in iron ore exports across the country, it has not prevented the port from drawing a roadmap for expansion.

Currently, Gangavaram Port has a capacity to handle 16.54 million tonnes per annum (mtpa) and has five deep-draft fully mechanised berths. After opening up for trade in 2009, it

is now planning to add one coal and three multipurpose berths and additional stacking area. It plans to increase its capacity to 45 mt by 2013 or the first quarter of 2014. Spanish major Duro Felguera bagged the €62-million order for supply of key equipment for the new coal berth.

It has installed mechanical handling systems for coal and other cargoes and attracted cargo from far-off places in the hinterland. Located in the backyard of the Visakhapatnam steel plant, the port ensures almost zero pre-berthing delay, ensuring congestion-free operations. It handles commodities such as coking and non-coking coal, iron ore, limestone, bauxite, steel, raw sugar, project cargo, slag and scrap.

In line with the Union Shipping Ministry's Maritime Agenda 2010-2020, the Andhra Pradesh government has prepared a perspective development plan in its vision 2020 document for the development of ports, which seeks to enhance the cargo-handling capacity of its ports to 200 mt by 2020.

Andhra Pradesh is looking forward to having a second major port in the state, after Visakhapatnam. "Nakkapalli in Visakhapatnam district will house the new major port. Currently, the new project is in the process of getting defence clearance. We need another major port because the commerce ministry has put some restrictions on infrastructure and connectivity. The new port is mainly expected to handle gas, oil and energy," says Ravi Chander.

According to a state government official, the non-major ports are being developed in association with the private sector and they would have about 54 per cent share of the cargo being handled by 2020. Andhra Pradesh has 14 notified non-major ports and one major port along its coastline.

Considering the slow growth in exports, it may not, however, be easy for the ports in Andhra Pradesh to become the leading destinations for trade. "We need to encourage exports as most ships go empty once they disembark import cargo. This imbalance in imports and exports, are evident in our widening current account deficit. Unless the country launches some concrete measures to encourage exports, trade will suffer," says the Krishnapatnam Port official. 

Tough Times Ahead

Dwindling new building orders worldwide due to economic slowdown has the global shipbuilding industry in for challenging times.



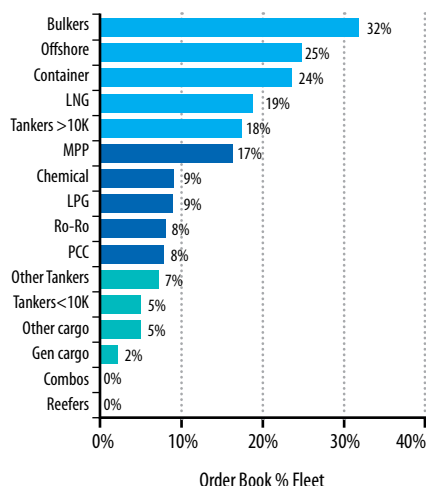
DR MARTIN STOPFORD

The world shipbuilding industry faces a grim outlook amidst European debt crisis, an oversupply of vessels, weak trade, concerns over the Chinese economy and a shortage of newbuilding finance. New ship contracts are expected to fall to 94 million gross tonnage (GT) in 2012 and 70 million GT in 2013. Shipbuilding output worldwide is likely to fall 5 per cent in 2012 as against 162.5 million deadweight, a new record set in 2011, according to Dr Martin Stopford, managing director, Clarkson Research.

He pointed out that though the seaborne trade might witness 4 per cent

Merchant fleet orderbook ranked by % fleet

Total orderbook 344 m dwt and average is 23% of fleet



	VLCC	Cape Size
Cost of Vessel		
At peak prices	160 million	99 million
Today	97 million	47 million

growth in 2012, the crisis is not yet over as there could be a downward scenario with slower GDP growth worldwide. The cargo volume fell to 7.8 billion tonnes in 2009, but then recovered to 8.6 billion tonnes in 2010 and 8.9 billion tonnes in 2011.

Though contracting of new ships continued, it was well below the level of deliveries. In 2009, orders slumped to 32.7 million GT followed by 88.8 million GT in 2012 and 55.2 million GT in 2011. "This means that the shipyards will not be able to sustain the current output levels beyond 2012," he said.

According to him, the type of vessels being ordered has changed over the last two years, moving away from bulk carriers and tankers towards specialised and offshore vessels. Shipbuilding prices have also fallen by 30-40 per cent from the peak level of 2008 when Clarkson shipbuilding price index reached 190. Since then the index has fallen by 29 per cent to 135.

The value of contracts placed by shipping investors in 2011 was \$99

billion, which was 8 per cent lower than in 2010 and 40 per cent lower than in 2008. The biggest investor was the US with \$15.5 billion followed by Greece at 13.1 billion and Norway at \$8.9 billion.

Meanwhile, demolition increased from 14.2 million dwt in 2008 to 41.4 million dwt in 2011. "We expect about 50 million dwt of ships to be scrapped in the whole of 2012, which is about one-third of the tonnage of new ships delivered."

China has moved ahead of South Korea to become the world's leading ship builder. In 2011, China delivered 19.3 million compensated gross tonnes (CGT) as against South Korea's 16.1 million CGT. CRSL's latest orderbook predictions suggest that China will hold its lead in 2012 with deliveries of 18.4 million compared to South Korea's 14.2 million CGT.

Though very competitive, Chinese shipbuilding output is heavily biased towards bulk carriers, which accounted for 63 per cent of output in 2011. "This part of the market is severely depressed, leaving Chinese yards with the challenge of diversifying," he said.

Another cause for worry is the increase in the cost of bunker fuel from \$200 a tonne to \$700 a tonne over the last six years and new emission norms. "On both counts the shipping industry faces a period of radical change particularly the design of vessels and its operation," Stopford said. [img](#)

This article is based on the presentation made at SMM2012 media conference at Hamburg.

Faced with a global economic slowdown and dwindling orders, Indian shipbuilding industry is relying on defence deals to tide over the crisis. While the shipping industry worldwide is grappling with challenges related to financial downturn, weak trade and oversupply of vessels, experts in India opine that without subsidy and tax reforms, shipyards in the country will find it difficult to survive.

“India’s share in the global shipbuilding market rose from about 0.2-0.3 per cent to about 1.1 per cent in 2006-07 due to the subsidy extended by the Central government. But the subsidy was withdrawn in 2007 and our share in the world market has again gone down to about 0.2 per cent subsequently,” says an official of a private shipbuilding company.

The scheme offered shipyards a 30 per cent subsidy on the bid price for the construction of a merchant vessel with a minimum length of 80 metres for the domestic orders. However for export orders, ships of all types and capacities were eligible for the subsidy.

Besides, the shipyards in the country are also grappling with challenges related to cost-competitiveness. “Indian shipyards are forced to import ship-making steel due to high tax structure. As a result, our input cost goes up compared to China and South Korea and we are unable to get greater share of the global market,” he said.

Currently, it is the defence deals that are keeping our shipyards busy. India has about 150 warships in service with its navy and another 75 warships in

its coast guard. Now that Indian Navy has decided to indigenise most of its technologies, 80 per cent of its warships have been built within the country since the past five decades.

Since India opened up defence production to the private sector in 2000, at least half a dozen private shipyards, have started building warships. At present, India has placed orders for 49 warships, of which 40 are being built in Indian shipyards.

The Indian commercial shipbuilding depends mainly on 28 shipyards comprising 8 public sector and 20 private sector shipyards. The current capacity of all the yards in the country is about 5,00,000 deadweight tonnage (dwt). Shipbuilding turnover for private and public sector shipyards, excluding defence shipyards, has grown from

about ₹440 crore (\$78.7 million) in 2001-2002 to about ₹6,200 crore (\$1.1 billion) in 2010-2011.

“Shipbuilding is a labour-intensive industry and we do not have structured labour system. This tilts the cost advantage towards China. Even finance is not available for shipbuilding companies as banks consider it as high-risk business due to the global uncertainties,” says another shipyard official.

Industry is also seeking ‘infrastructure status’ to the sector so that it can upgrade machines and bring down input cost. “We need to have a larger share of the global market. If volumes do not grow, ancillary industries will not set up units here. China for instance has about 1,000 shipyards. Though about 300 of them are on the verge of shut down due to weak trade and declining



Indian Shipyards Face Slump; **Rely on Defence Orders**

Indian shipyards, which are relying on defence orders to stay afloat, seek tax reforms and subsidy to remain competitive in the global market.

orders, the country has a huge ecosystem built around its shipyards,” says the private shipyard official.

In April this year, in a written reply to Rajya Sabha, Defence Minister AK Antony had admitted that the Indian shipyards are passing through a bad phase. “As per estimates of shipping ministry, the share of Indian shipyards in new order for shipbuilding slumped from a high of 1.23 per cent in 2007 to 0.14 per cent of world order in 2010,” he said. Experts expect the global situation to improve in the coming year. “Delivery of ships globally should commence again by 2013-14 and by then our situation might also pick up,” said the shipyard official. **THE**

Sreekala G

ClassNK Preparing for the Future

Today, as the world's largest classification society in terms of tonnage under class, ClassNK continues to distinguish itself in the ship classification sector, both as a top performer dedicated to quality and innovation and as a leading contributor to the continuing growth and technical development of the global maritime industry.

Overview

As a classification society, Nippon Kaiji Kyokai, better known as ClassNK or simply NK, develops rules for safeguarding vessels, their crews, and the marine environment. In 2011, ClassNK became the first in the industry to have a classed fleet in excess of 190 million gross tonnes. At the end of February 2012, its register accounted for 7,750 vessels, totaling 197 million gross tonnes, making ClassNK the world's largest classification society in terms of gross tonnage. This number represents more than 20 per cent of the world's merchant fleet under class. ClassNK provides a full range of survey, auditing, and consulting services, including classification and statutory surveys, material and equipment approvals, auditing and registration of ship safety management systems, as well as certification of quality, environmental and occupational health and safety management systems in accordance with international standards. With a worldwide network of more than 120 exclusive surveyor offices in ports and maritime cities around the world, its services are available around the globe 24 hours a day.

Class NK is a member of IACS (the International Association of Classification Societies) and a marine partner of the Institute of Marine Engineering, Science and Technology (ImarEST).

Since its founding as an industry in 1760, classification has been constantly evolving to meet the changing needs of the maritime industry. From its early beginnings as a register and evaluator of ships in service, classification grew

Formed in 1899 as Teikoku Kaiji Kyokai (the Imperial Maritime Association) in Tokyo, ClassNK has been promoting the regulation and development of shipping and shipbuilding in Japan. Today it is one of the world's largest classification societies.



NEWBUILDING CLASSIFICATION IS AN EXTENSIVE PROCESS WITH SURVEYS THAT COVER EVERY STAGE OF THE SHIP'S CONSTRUCTION

to become technical organisations responsible for maintaining its own dedicated rules for ship construction and maintenance. With the development of SOLAS, MARPOL, and other international conventions in the 1900s, classification made another tremendous shift to become international regulators for the maritime industry, working on behalf of flag states to ensure the safety of life and property at sea and protect the marine environment. Class NK is right on the cusp of another great change in the role of classification societies, and that is the change from serving as maritime regulators, to becoming maritime innovators.

ClassNK has made R&D such an integral part of its operations over the past few years. Whereas in the past R&D activities were limited to classification related topics like rule development, today the company is working to invest in new technologies that have the potential to revolutionise

shipping industry.

From reducing GHG emissions to overcoming the technical hurdles posed by new regulations, the challenges faced by shipping industry have never been greater. In order to develop solutions to these problems, ClassNK will need to take a more proactive approach and play a greater role in new technology development.

On the research front, ClassNK continues the development of new technologies for reducing GHG emissions from ships, one of the foremost challenges facing the maritime industry today. Reflecting a shift to greater joint R&D with industry, this commitment includes funding and research support for 19 projects designed to reduce maritime emissions by as much as 30 per cent in the short term. ClassNK's active support is helping make these technologies a practical reality. [img](#)

New Mangalore Port Trust

Eco-friendly Port

Your gateway to the world market



HIGHLIGHTS

- Largest LPG handling port in India
- Deepest Inner harbour with 15.40 mtrs. depth at the entrance channel
- All weather port
- Closer to the major international sea route
- One of the largest iron ore handling ports
- Highest Coffee exporting Port in India
- First port to have state of the art cement terminal
- Equipped with modern Vessel Traffic Management System & CCTV
- Highest labour productivity among Major Port
- Regular feeder/Main line container service
- Availability of sufficient storage area - both covered and open
- Fast Turn Round of Vessel
- Deep draft berths for handling POL, other liquid cargo and general cargo
- Ideally suited port for container terminal
- All facilities focused towards complete customer satisfaction
- Ideal for handling Project cargo & heavy machinery
- Fully Computerised Port



New Mangalore Port Trust

Panambur, Mangalore - 575 010 Tel: 0091-824-2407300 Fax: 0824-2408390/2408300
Email: nmptchairman@sify.com, Website: <http://www.newmangalore-port.com>

An ISO 9001:2008, 14001:2004 & ISPS Compliant Port

ESTABLISHING CLASS IN SHIPPING

It was his growing up years in Nagoya – a port city in Japan – that shaped his future decisions. No wonder **Noberu Ueda** chose a profession that is related to ocean. Though as a young boy he wanted to become a marine biologist, as he grew older, Ueda became more interested in the ‘physics of ocean’ and the ships that travelled across it. So he joined Tokyo University to specialise in naval architecture. After completing his Masters from the university, he joined ClassNK in 1969. During his tenure at ClassNK spanning over 40 years, he has overseen every aspect of ship safety – from plan approval, to rule development, to surveys of ships in Japan and around the world.

In 1980, he opened ClassNK’s office in Seattle, which was the company’s first office on the West Coast, and served as General Manager for five years before returning to Japan to serve in the NK Hull Department. There he served as the General Manager and later became one of ClassNK’s Managing Directors, and eventually Chairman and President.

From July 2010 to June 2011, Ueda served as the head of the International Association of Classification Societies (IACS), which is an association of 13 of the largest classification societies. He continues to contribute to the leadership of IACS in his current role as Vice-Chairman.

Since becoming Chairman and President of ClassNK in 2008, he has made it his mission to improve every aspect of ClassNK’s activities. As a result, he is involved in all operations of the company. He also travels constantly to meet various stakeholders in the shipping industry to understand the needs of the sector.

In this interview Noberu Ueda talks to **Ramprasad** about everchanging emission norms, impact of economic crisis on shipping industry and his company’s research programmes.

Q. Considering there’s so much uncertainty about the treaties that hold the emission norms together, how difficult it is to offer classification certifications on fast changing emissions reduction technologies that continue to be developed?

A. For the development of new emission reduction technologies especially, it is essential to eliminate uncertainty from certification process for each new technology in order to ensure that certification can be carried out in accordance with MARPOL Annex VI.

At the same time however, it is important to realise that Annex VI does not cover the safety aspects of such technologies; so it also important for IACS to develop new unified requirements or conventions for those technologies as necessary. This means that in order to carry out certification properly, we have to be constantly attuned to the discussions at both IACS and the IMO.

The other way we can deal with this issue, is to be involved in the actual development of new technologies via collaborative R&D. In this way, we can obtain and understand the technical background for these new technologies at the earliest possible stages, which speeds up the rule-making and certification process.

Q. ClassNK recently signed an extensive agreement of cooperation

A full-length portrait of Mr. Noberu Ueda, an older man with dark hair and glasses, wearing a dark blue pinstripe suit, a white shirt, and a red tie. He is standing against a light-colored, horizontally-ribbed wall. The image is the background for the entire page.

During his tenure at
ClassNK spanning over

40 years,

Mr Noberu Ueda has
overseen every aspect
of ship safety – from
plan approval, to rule
development, and to
surveys of ships in Japan
and around the world.

NOBERU UEDA
CHAIRMAN, CLASSNK

with the National Maritime Research Institute (NMRI) in Japan. What exactly does this agreement cater to? Does it also include extensive research in shipbuilding norms, structuring and classification technologies, including GHG emissions reduction and energy conservation technologies?

A. The objective of the agreement is to establish a framework of cooperation and joint R&D by utilising the research facilities and staff of the both organisations in order to promote effective R&D for maritime and offshore development.

Although we are at the beginning stage of the collaboration process, we have already started cooperative work (e.g. exchange of research staffs etc.), as well as research projects for the development of rules and guidance for the implementation of the Ship Recycling Convention, as well as joint research projects on damage stability and azimuth thrusters.

Q. What has been ClassNK's take on the floating liquefied natural gas (FLNG), which has been expanding its presence in view of the problems faced in processing onshore LNG projects?

A. We have been proactively supporting FLNG as one of the most exciting technologies for the future of the maritime and offshore industries. For example, we created and released our own independent "Guidelines for Floating Offshore Facilities for LNG/LPG Production, Storage and Offloading" to help give designers

a practical understanding of how to implement the rules and regulations for such structures.

At the same time, we have been working proactively on a number of joint projects with shipyard and operators, which we feel have great potential to overcome many difficult challenges in FLNG development.

Q. How do you address areas such as regasification, hulls, mooring and offloading systems?

Each of these areas you mention has specific requirements that I will address below:

Regasification: Due to the limited space available onboard, regasification equipment needs to be kept as small as feasibly possible. At the same time, however, as this equipment is being installed on a floating structure, equipment needs to be fully functional even in rough conditions.

Hulls: One major concern is the extended period without docking, and this need to be considered in almost every aspect of hull design, including determination of initial dimensions, fatigue strength confirmation, implementation of fire resistant/fire preventive design elements and systems, and development of maintenance procedures.

Mooring: Mooring systems must not interfere with production and offloading operations, and preferably be able to be separated in the event of an emergency.

Offloading systems: Offloading systems must be designed to cope with the movement of two floating structures

and, at the same time, systems designs must take into account the limited track record and experience with LNG Ship-to-Ship (STS) transfers.

As a classification society we see it as our role to overcome such technical challenges together with shipyards and operators through joint R&D and rule development.

Q. As a top provider of classification services, there are several issue that maintenance and inspection present. How far can real-time monitoring systems and sensors help in avoiding these? What suggestions does ClassNK offer to shipowners and operators to address this issue?

A. The improvement of the monitoring data analysis of equipment in the ship is considered to be one possible solution of the solution to realise safe navigation and reduce maintenance costs.

Therefore, ClassNK is supporting and jointly carrying out an R&D project to analyse the sensor data of machinery and equipment onboard ships with IHI Marine United Inc. and IBM Japan, Ltd.

The purpose of this project is as follows:

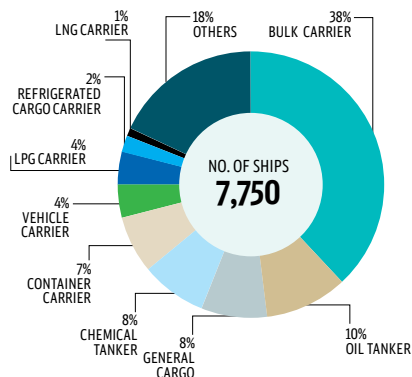
- Accurate performance diagnosis
- Failure prevention
- Extension of maintenance period based on the condition monitoring

In addition, ClassNK will build a database using cloud computing technology based on the result of this study in the future, in hopes of providing new web-based condition monitoring and management services for shipowners and management companies.

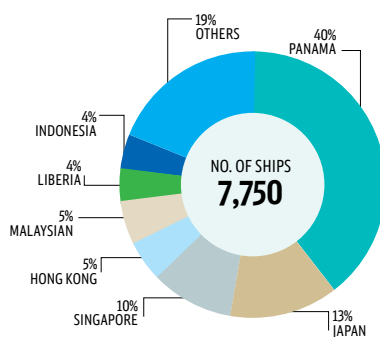
Q. It was recently reported that class society has also initiated action in the field of GHG emission reduction research, having pledged more than \$25 million to GHG emission reduction related research a couple of years back. How effectively has this been accomplished?

A. ClassNK has been participating in 19 of 22 projects on Japan's National Project to reduce greenhouse gas emissions, a four-year programme that began in 2009.

CLASSNK FLEET BY SHIP TYPE
(AS OF END OF FEB 2012)



CLASSNK FLEET BY FLAG
(AS OF END OF FEB 2012)



At the end of March 2012, 7 of 19 projects had already been completed with positive outcomes.

As a major outcome, a demonstration of the air lubrication system has achieved their original target of 10 per cent emission reduction, and this technology will be applied to the 95,000-dwt Post-Panamax bulk carriers of the US company Archer Daniels Midland, built by Oshima Shipbuilding Co. in collaboration with Mitsubishi Heavy Industries.

Q. The Eurozone crisis and especially the looming economic crisis in the US has had a mixed impact on the shipping industry, with fresh orders for new builds being stalled for some period. How do you assess the impact?

A. The economic crisis that has brought about today's economic and financial situations is still ongoing and the economy has yet to fully recover.

The shipping market also remains stagnant due to the weak global economy and the huge amount number of newbuildings over the past several years.

We see this stagnant situation continuing for some time, and thus we expect that the real recovery of new shipbuilding market, as well as the shipping market, will take some time.

We also think the severe situation in recent new shipbuilding market, as well as the increasing price of fuel, will make the shift towards more efficient vessels all the more imperative.

This will be a tremendous challenge for the maritime industry as a whole, but I think it will help create a new era of green shipping.

Q. Has it also triggered an even stricter maintenance and inspection standard to avoid refurbished ships from being floated into the waters again?

A. We think the stricter maintenance and inspection standard is one of the triggers for increased scrapping of vessels in the current market.

In case of VLCCs, there are just fewer than 60 double-hull tankers aged older than 15 years in the market at the present



Increasing price of fuel will make the shift towards more efficient vessels all the more imperative. This will be a tremendous challenge for the maritime industry as a whole, but I think it will help create a new era of green shipping.



and oil majors are reluctant to employ VLCCs older than 15 years.

Due to relatively high scrap prices at present and also especially falling operational rates and lower freight rates for older VLCCs, it is likely more of them will be either scrapped or converted into offshore structures.

Q. Considering the capital intensity and the cyclical nature of the charter rates, lending in the ship financing sector seems to have definitely declined in the last two years, especially after the economic downturn. How far do you see this affecting investments in the sector? Has the effect been more on charter vessels or commodity carriers?

A. We see the lingering shipping recession looks certain to crimp investments by most of operators except for cash-rich companies for some time.

At the same time, most of Japanese owners have been faced with a lack of funds as their business has been hard hit by the yen's prolonged appreciation. Owners cannot afford to make fresh investment in the down market, and are unable to get loans due to tougher

lending norms applied by financial institutions.

On the other hand, many operators believe it still essential to continue chartering ships, especially commodity carriers, from owners to keep their interest-bearing liabilities from increasing, and so we do not think that trend will change in the future.

Right now, global investment funds, leading investors and financial institutions are beginning to look into ship investments while traditional shipowners are struggling with a shortage in equity stemming from the recession and are not making new investments even with the current low ship prices.

Q. Which areas in the global shipping industry need to be further refined to claim extraordinarily high standards of building and safety norms. Do you have an example in sight?

A. One area that needs to be addressed is the carriage of nickel ore and other cargoes that can liquefy during transportation. Such cargoes have already claimed a number of vessels over the past few years.



In order to improve the EEDI, improvement and optimisation of ship design including hull form is most effective. ClassNK is providing broad support for R&D of the industry including projects for improving the energy efficiency of ships.



In order to address this concern, we have released new guidelines for the carriage of such cargoes, which we hope will help owners address the dangers these cargoes pose.

For example, in the current IMSBC Code, carriage of cargoes which may liquefy (such as nickel ore) should only be accepted when either (A) the Moisture Content (MC) is equal to or below the transportable moisture limit (TML); or (B) the vessel has been



CLASSNK RESEARCH CENTRE IN CHIBA

specially designed and certified by its flag administration to carry cargoes where MC exceeds the TML.

Therefore, it is necessary to recognise and implement several operations to avoid the liquefaction, i.e. ensure that MC is below TML, (as in approach A) and accomplish them appropriately in order to improve the safe carriage of nickel ore (These operations are described in Chapter 4 of our guidelines).

Furthermore, considering the possibility of liquefaction caused by error in measurement of MC and TML etc., it is also important to discuss additional features/requirements for the construction new vessels, such as those covered in Chapter 5 of our guidelines, and have those new vessels be approved as specially constructed cargo ships by their flag administrations.

Q. How exactly do you assess and address the two critical areas of fatigue strength and sloshing?

A. ClassNK has its own original guidelines for the assessment of the fatigue strength and the sloshing strength such as the Guidelines for Fatigue Strength Assessment of Container Carriers, Guidelines for Strength Assessment under Sloshing Loads (Membrane-type LNGC) and carries out the assessments according to these guidelines in the daily works.

Furthermore, ClassNK is carrying out the relevant research and development in

order to improve the relevant Rules, and Guidelines such as the effects of plate thickness to fatigue strength, the effects of Whipping & Springing to fatigue strength, Dynamic structural response of Membrane-LNG containment systems etc.

In order to improve the EEDI, improvement and optimisation of ship design including hull form is most effective. However as a verifier, ClassNK does not conduct ship design by itself, since it has to deal with ship designs of its customers which includes confidential intellectual properties belonging to them.

On the other hand, ClassNK is providing broad support for R&D of the industry including projects for improving the energy efficiency of ships. For example, ClassNK is now conducting a joint R&D project with shipyards for improving EEDI, through a Japanese shipbuilder's association CAJS (the Cooperative Association of Japan Shipbuilders).

In order to assist the stakeholders, shipowners, shipyards and naval architects to understand the EEDI and relevant regulatory requirements, ClassNK is actively working on providing the latest information to them, through our technical committees and seminars held around the world. In addition, ClassNK is holding timely meetings with individual customers, in order to explain the details of EEDI requirements, calculation method and verification procedure, etc. 



REACHING NEW HEIGHTS IN CARGO HANDLING.



MARG Karaikal Port is the only modern private multi-commodity port on the South East Coast of India with a diverse cargo mix covering coal, fertiliser, container cargo, liquid cargo, agro commodities, cement, project cargo and steel scrap.

With the recent addition of raw sugar, edible oil and crude oil to its forte, the port has further strengthened its expertise in handling diverse cargo.

MARG Karaikal Port's state-of-the-art infrastructure and most modern operational facilities offer the best solution for diverse cargo handling.

- 2 cape size berths for handling coal
- 2 Panamax size general cargo and container berths
- 1 dedicated berth for handling smaller vessels of upto 25,000 DWT
- 63,000 sqm of covered warehousing
- Open storage of around 4,50,000 m²
- Liquid storage of around 18,000 KL
- 800 plus ground slots for containers
- Unloading arm for crude oil handling
- 3 Mobile Harbor Cranes – Leibherr LHM 400 with 35 CBM grabs
- 3 dedicated railway sidings within port premises
- Single Window Clearance, transparent paper – free 'e Port' for hassle-free transactions
- Efficient operations ensures congestion-free port
- Obtained comprehensive Quality Management System certifications: ISO 9001, 14001 and OHSAS 18001

2009	2010	2012	Future
• 2 Berths • 5.2 mmtpa • Handymax Ships	• 3 Berths • 10 mmtpa • Panamax Ships	• 5 Berths • 28 mmtpa • Capesize Ships	• 11-14 Berths • 50+ mmtpa • Heavy Capesize Ships



Essar Steams Ahead

India's second largest private port company joins hands with Port of Antwerp International, to build a port city and increase trade volumes.

Essar Ports is riding high despite a global economic slowdown and declining trade. The company has formed a strategic alliance with Port of Antwerp International (PAI), the international investment arm of Belgium's Antwerp Port Authority. PAI has picked up a 4 per cent stake in Essar Ports for ₹175 crore (\$31.3 million).

As part of this partnership, Essar Ports, the country's second largest private sector port and terminals company, will look at building a port city at its harbour at Hazira in Gujarat. The joint venture will also help the company to increase trade volumes by attracting cargo traffic from Antwerp, currently landing at other Indian ports, at concessional rates.

"This partnership with Europe's second largest port will promote growth of traffic between Port of Antwerp

and ports of Essar and help us in developing world class port facilities with a focus on quality, productivity and environment," said Rajiv Agarwal, chief executive officer & managing director, Essar Ports.

The Antwerp Port Authority and Essar Ports will collaborate in the areas of training and consultancy services, port planning, traffic flow, quality and productivity

improvement. The port city planned will be along the lines of the one at Antwerp, where several industrial units surround the port.

According to Agarwal, most of the proceeds from the stake sale will be used to reduce debt, which stood at ₹5,488 crore (\$980.4 million) on March 31 this year. PAI is picking up the stake in the form of GDRs. Indian regulations do not allow

Essar Ports to raise equity till the promoters bring down their stake to 75 per cent or below. Once that happens, the GDRs will be converted to equity shares. Currently, the promoters hold around 84 per cent in the firm.

PAI will also play a role in the management of the firm as well. Jan Adam, chief financial officer of the Port of Antwerp, will be appointed as a non-executive director on the board of Essar Ports.

Essar Ports reported a loss of ₹61.5 crore (\$10.8 million) for the fourth quarter ended March 31, 2012, as against a profit of ₹11.5 crore (\$2 million) in the previous year. Its revenue in the same period rose 45.6 per cent to ₹297 crore (\$53.1 million). The loss was due to a one-time provision on account of a contingent liability of ₹235.50 crore (\$42.14 million). "This liability was due to 'recognition of interest on a corporate debt restructuring (CDR)'," the company's statement said.

Revenue for FY12 increased by 52 per cent to ₹1,131 crore (\$202.4 million) from ₹746.5 crore (\$133.6 million) revenue from the port business in FY11, erstwhile Essar Shipping Ports & Logistics (ESPLL) had a revenue of ₹2,086.1 crore (\$373.2 million). Net profit for FY12 increased by 124 per cent to ₹63.9 crore



(\$11.4 million) from ₹28.5 crore (\$5.1 million) net profit from the port business in FY11, erstwhile ESPLL had a net profit of ₹70.2 crore (\$12.5 million).

“We are witnessing expansion plans in most of our anchor customers. In case of Essar Oil and Essar Steel, the capacities are getting expanded which

will result in cargo growth for us. We are going to start operations at our iron ore terminal in Paradip Port. Additional volume will come in for second quarter. So we expect a good year ahead. We should handle about 65 million tonnes (mt) of cargo in 2012-13. By 2014 our capacities will go up to 150 mt and we are confident of

handling about 125 mt of cargo,” he said. During the financial year Essar Ports handled cargo to the tune of 43.23 million metric tonnes (mmt) as against 39.55 mmt during FY11, an increase of 9 per cent.

Essar Ports develops and operates ports & terminals for handling liquid, dry bulk,

break bulk and general cargo. It has an aggregate capacity of 88 mmtpa across two facilities located at Vadinar and Hazira in Gujarat.

The facilities at Vadinar and Hazira are used primarily by affiliated customers for the receipt of raw materials such as crude oil, iron ore / pellets, limestone, dolomite and coal, and for the dispatch of finished goods such as petroleum products and steel products.

The port expansion projects have been undertaken, in part, to accommodate the increase in traffic expected to arise from plant expansions planned to be carried out by the company's affiliated customers, and in part to support the increase in business from non-affiliated customers being targeted by the company.

“We are adding about 60 mt in Paradip which will come on stream by this month. Again in Paradip, we are coming up with a coal terminal of 14 mt capacity by 2014. 20-mt coal terminal is also coming in Salaya. Another 20-mt expansion is taking place in Hazira. Total investment that goes into these expansions is about ₹9,600 crore (\$1.7 billion), of which we have already spent about ₹6,700 crore (\$1.19 billion),” he said.

Essar Port is also planning to venture into building container terminal projects and is on the lookout for partners. In fact, the company is in the race to build the ₹3,683-crore (\$659 million) mega container terminal at Chennai Port. While there were seven bidders in the pre-bid meet, now the race is between Essar Ports and Adani to get the final project. Both the companies are now awaiting security clearance from the defence ministry. 

INTERVIEW

Rajiv Agarwal, CEO&MD of Essar Ports, has spent 26 years in various industries including retail, BPO, telecom, shipping and logistics. He has been associated with the ESSAR Group since 1997 and was the ED of Essar Shipping Limited (ESL) from 1998-2002. He won CEO of the Year Award in 2009 at the Asia Retail Congress. A chartered accountant by training, he became a CEO in 1992, when he was just 28 years old. As per his management philosophy, everyone should be responsible for his/her functions. In this brief interview, he talks about the status of port development in the country and its future.



Q. As a port operator what is your perspective of port development in India and what do you think of future scenario?

A. Indian story is definitely a growth story. We are an energy-hungry nation with billion-plus population. Infrastructure has to grow and requirement for raw materials will also go up. External trade is increasing by 20-25 per cent year-on-year. Logistics cost plays a crucial role in the overall competitiveness of the industry. Sometimes these costs will play a major role in determining the success of any industry. All this will throw up demand for world class ports. So, in the time to come there is a need to modernise our existing ports, deepen the draft, improve the mechanisation and increase capacity utilisation. I see a good growth potential in port sector. Though we have momentary

ups and downs in the development process, they get resolved in due course.

Q. How is the investment into port sector flowing?

A. If you look at various infrastructure segments, I think port sector is still attractive for investment because there are no major problems unlike other sectors. I would say investors are pretty much keen to invest in the port sector. However, the overall mood that the industry is passing through today will certainly impact the investment.

Q. Are you looking at any greenfield port development?

A. We have the intention. But right now, we do not have a project in hand. We would concentrate first on completing the projects we already have.

LNG as Alternative Ship Fuel

It makes commercial sense to opt for LNG as ship fuel as it offers benefits of less emissions and lower fuel costs, says GL-Man joint study.

With stringent regulations forcing the shipping industry to rethink its fuelling options, use of liquefied natural gas (LNG) is gaining momentum not only in Europe but also in the US and Asia. A joint study by class society Germanischer Lloyd (GL) and engine builder MAN on the costs and benefits of using LNG as a fuel on such vessels, shows that under certain circumstances the use of LNG offers less emissions and lower fuel costs as against other two emission reduction options – exhaust gas treatment, or scrubber and the use of scrubber plus water heat recovery (WHR).

According to the study, the attractiveness of LNG as ship fuel compared to scrubber systems is determined by three parameters. They are the share of operation of a ship inside emission control area (ECA), investment costs for the LNG tank system on the ship and the price difference between LNG and heavy fuel oil (HFO).

“If the price levels are more or less equal, it certainly makes commercial sense to opt for LNG. The more time a ship spends inside the emission control areas, the faster the additional investments will pay off. However, the absence of a global market for LNG makes it extremely difficult to predict what the cost of LNG will be after five years,” says Dr Pierre C Sames, senior vice president, GL Research and Rule Development.

The study found that for a smaller size container ship of 2,500 teu capacity with 65 per cent ECA exposure, its LNG propulsion system would achieve a payback time of less than two years based on the standard fuel price scenario. For such a vessel, the LNG



The world's first LNG-fueled product tanker, the *Bit Viking*, is now officially in service. The 25,000-dwt product tanker underwent an LNG main machinery conversion. The vessel is now also the largest commercial vessel to use LNG as fuel. During the conversion, the vessel's main engines were rebuilt for dual-fuel operation, and two 500-cubic metre LNG tanks were placed on deck, giving the vessel a range under LNG of 12 days. However, such conversion may not be feasible for many ships due to limited engine retrofit options and lack of space for LNG tanks.

system would be an attractive option as against scrubbers as long as the LNG delivered to the ship costs the same or less than HFO, when the fuels are compared on their energy content.

The scrubber system reduces sulphur oxide emissions by scrubbing the exhaust gas from the engines with seawater in its primary operation mode.

“The opaque pricing of LNG is further complicated by the marked difference in prices between the US, Europe and Asia, which is much larger than that in heavy fuel oil. In the US, LNG currently costs one-fourth of what ship operators would have to pay in Asia. However, we can predict with some certainty that LNG will be and remain in the foreseeable future, more economical than marine gas oil (MGO) and this difference will drive return on investment in vessels operating in ECAs. There are indications that ship operators may receive LNG at the price of heavy fuel oil in Europe today if they negotiate well,” says Sames.

The study determines that for large container ships of 14,000 teu, which would typically spend much less of their working lives operating within ECAs, the LNG system yields the shortest payback time when the standard fuel prices scenario is used. And the use of a WHR system will further reduce payback time.

LNG prices in Europe appear attractive at around \$10 per million British thermal units (mmBtu), even with the additional small-scale distribution costs associated with the delivery of the LNG to the ship's bunker

tank. The study concludes that even with LNG prices as high as \$15 per mBtu, a smaller vessel running on LNG systems would be at a competitive advantage compared to a ship with a scrubbing system in terms of payback time. “The study result suggests that an additional initial investment of \$300-500 per kilowatt, for a ship, taking all the LNG-related equipment into account,” says Sames.

According to him, the establishment of more ECAs will lead to increased LNG adoption. “Deep sea vessels typically spend 5-6 per cent of their time in ECAs. But this figure could grow considerably on a number of shipping routes once the new requirement for ship fuel quality, which are equivalent to those in northern Europe, take effect along the North American coastlines in August 2012. Besides, a number of other sea areas are expected to introduce similar restrictions on emissions before 2020, the effective date of the global sulphur limits on heavy fuel oil,” he points out. 

Get



to



No matter what – no matter where. Get it there through the
Port of Halifax: reliably, effectively and efficiently.

It's all about making connections:
we serve over 150 countries, delivering virtually anywhere.

Make your connections.
Get the Port of Halifax working for you.

- *North America's first Port Gateway via the Suez* • *Ice free*
- *Minimal terminal dwell* • *Deepest berths on the East Coast*

Port of
Halifax

For more information Contact:

Alison Winsor
Business Development
and Operations
Tel: 1 902 426-7544
email: awinsor@portofhalifax.ca
www.portofhalifax.ca

Ambassador India

Jeena
& COMPANY

www.jeena.com

Get it there.



Global Movers

Q. What kind of cargo Cargill moves in and out of India?

A. Coal is our main product that we are getting into India. In exports it is iron ore, as and when it is available to support our internal customers. For Cargill Foods India, we handle agri-products like wheat and soya bean meal. I cannot comment on numbers but it is a fairly big volume that we are trading today.

Coal is where we see growth both for India and for our company. So coal is a big story for us and we are very optimistic about the prospects.

Sugar is another big business for us. We have a big sugar programme at Cargill.

Managing commodity supply chains

Cargill is an international producer and marketer of food, agricultural, financial and industrial products and services. Founded in 1865, Cargill is a privately held company and employs 139,000 people in 65 countries. Cargill loads and discharges bulk goods in more than 6,000 ports around the world for Cargill and its customers. It's business has always been based upon moving surplus to need. Cargill helps accelerate time to market, realise new cost-efficiencies and ensure supply chain integrity. It has become one of the most flexible and reliable cargo shippers on the planet.

Energy, Transportation and Metals (ETM) division in Cargill provides a unique combination of physical, financial and commercial know-how in managing supply chains. Cargill ETM manages commodity price volatility and supply chain complexity for more than 30 of Cargill's business units. Combining this practical experience with our in-depth understanding of global commodity markets – derived from our position as both customer and supplier – Cargill ETM also develops solutions for customers.

Meenu Sawhney, Manager, Business Development India, Cargill, talks about company's Indian operations in ETM and her experiences with Indian ports.



WITH 20 PLUS YEARS OF EXPERIENCE IN OCEANS FRIEGHT IN BOTH OIL AND DRY MARKETS, MEENU SAWHNEY IS AN EXPERT ON INDIAN SUBCONTINENT LOGISTICS

Seasonality plays a big role in sugar business. Sometimes we are importing sugar from Brazil and sometimes we are exporting out of India.

Q. And on the metals side?

A. In metals we deal with anything to do with ferrous – steel, scrap and steel products. Obviously India is big region, but China is main market for us. We have some steel service centres in America and China. We are sourcing from various countries like Australia, Chile, and Brazil. Because of ban on iron ore exports, business from India is down. But we are hoping to come back when things get better.

Q. Tell me about the cargo handling and logistics.

A. We handle cargo all along Indian coast. We have couple of long-term contracts with shipowners. Otherwise, we are pretty much active on the spot side. Currently our cargo is transported through handymaxes and panamaxs. But I should say, we are one of the biggest cape movers among traders. We have some great relationships with end users. We hold hands with them in providing logistics solutions.

Q. Which are the ports you have been using in India and how was the experience?

A. We are careful in using west coast of India because of piracy. East coast is our main ground; specifically we use ports like Tuticorn, Karaikal, Krishnapatnam and Visakhapatnam. Sometime the delays and demurrages have been very challenging and disappointing. We expect agents to handle with more professionalism and do better to help the trade.

We have some strong relations with shipowners wherein we leverage on the long-term charters. We do have some spot and medium-term charters as well. We are partners to Rightship which means safety for the cargo and crew. So all the ships we engage need to be RightShip approved. We have this corporate responsibility towards the industry.

Q. Which other regions are you engaged with?

A. Whole of Asia region is interesting for us. Indonesia is interesting for its coal, iron ore and bauxite business. Thailand markets are interesting for us for both coal and Sugar. 

HARBINGERS OF CHANGE



During the last five and half decades several shipping ministers were instrumental in making key decisions that changed the shape of Indian Shipping Industry. What was once a combination of communications, transportation and shipping, the ministry came a long way with several game changing policies. Ably assisted by efficient bureaucrats and other cabinet colleagues, these ministers have laid foundations for a vibrant shipping industry. Our effort is to showcase a few milestones – conceptualised or implemented by some of the shipping ministers – that have helped bring about a sea change in the way our shipping industry functions.

COMPILATION: SREEKALA G
ILLUSTRATIONS: JAYARAJ FREDERICK

Lal Bahadur Shastri (1957-58)

THE VISIONARY



In 1957, Shastri became the minister for transport and communications and shipping was a department under his ministry. He focussed on the development of domestic shipping industry and shipbuilding. A thinker par excellence, Shastri was instrumental in codification of Indian shipping laws in accordance with universal practices. This in turn led to formulation of Indian Merchant Shipping Act 1958. Under this Act, Director General of Shipping and Shipping Development Fund Committee (SDFC) were created. SDFC under 'revolving' shipping development fund disbursed large amounts of loans at attractive rates of interest varying from 3 per cent during 1959 to 1971 and 7.5 per cent from 1980 to 1986. Till it was abolished in 1987, SDFC was the single financial institution with an exclusive mandate for financing the shipping industry. Besides enabling shipping companies to tide over their financial constraints, loan payments were ploughed back into the fund and utilised to grant new loans.

P Subbarayan (1959-62)

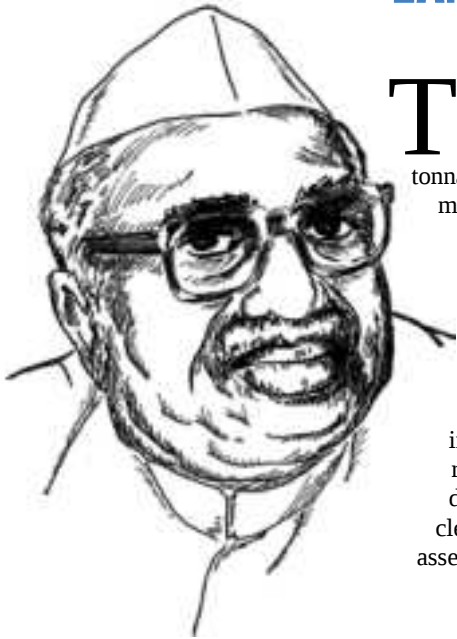
HERALDING PSU WAVE

The greatest milestone during P Subbarayan's tenure as the transport and communications minister was the establishment of the country's premier shipping line 'the Shipping Corporation of India (SCI).' To enable the public sector participation in shipping industry, the government decided to merge the Eastern and the Western Shipping Corporations in 1961 to form SCI. In line with the socialist approach of that era, SCI was aimed to serve India's overseas and coastal seaborne trade as its primary flag carrier. Starting out as a marginal liner shipping with just 19 vessels in the 1960s, SCI emerged as a complete liner services company with 90 per cent of its entire tonnage coming from liner ships regularly plying coastlines. In 1960, the government also set up Transchart, a chartering organisation to make shipping arrangements for government cargoes. The aim was to give preference to Indian flag vessels if ships carrying the national flag were available in the market.



Babu Jagjeevan Ram (1962-63)

LANDMARK SET



Though he presided over the department of shipping just for a year, Babu Jagjeevan Ram's tenure witnessed a major landmark in the growth of the Indian shipping industry. For the first time, the gross tonnage of the industry crossed 1 million mark in 1962. In fact with its merchant fleet on a rapid expansion mode, the period from 1960-1970 is considered as the golden age of domestic shipping. Besides, Major Port Trust Act was passed by the government in 1963. According to this, each major port is governed by a board of trustees appointed by the government and their composition gives dominance to public enterprises and government departments. Customs Act 1962 also came into effect during Jagjeevan Ram's time and it provided judicial and administrative powers for efficient working of the shipping industry. The Act almost covered every aspect of rules and regulations required for international trade of goods and services in India, including determination of items to be imported or exported, warehousing, clearance of cargo, levying and exempting goods from duties, assessment claims etc.

Neelam Sanjeeva Reddy (1966-67)

SOCIAL SECURITY PROVIDER

During his short stint in 1966 as minister for transport, aviation, shipping and tourism, N Sanjeeva Reddy introduced Seamen's Provident Fund Act. This is the first social security scheme for Indian Merchant Navy seafarers. The Act led to the establishment of a provident fund for seafarers for old age retirement benefits and welfare schemes for their family members in the event of the death of a member seafarer. Under the Act, a board of trustee is appointed from the government, shipowners and seafarers organisation. Director General of Shipping is the chairman of the board and seamen's provident fund commissioner is the secretary of the board. The trustees will serve five-year time period on board. It is a contributory scheme and in the beginning the rate of contribution was 8 per cent. The prevailing rate of contribution is 10 per cent of the wages, leave wages, seniority supplement and 10 per cent of the supplement payable to the seamen.



K Raghuramaiah (1969-71)

BUILDING PROFESSIONALS

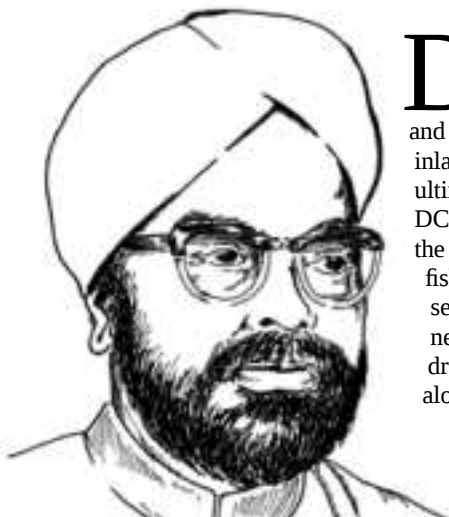
After Shastri, it was Raghuramaiah who started initiatives to strengthen training programmes for shipping professionals. The first organised attempt to train personnel for the commercial operations of shipping was started in 1961 with the establishment of an institute of shipping called Narottam Morarjee Institute of Shipping. Till then, persons seeking professional qualifications in ship broking used to appear for examinations conducted annually by foreign institutions. But this was not sufficient as there was a dire need for an Indian institution to offer professional training in commercial aspects and management of shipping in the wake of expansion of Indian Merchant Marine and Shipping activities in our country.

It was the National Shipping Board under the department of shipping that recommended to the government for the setting up of the institute. The government accepted this recommendation and the institute came in place under the joint auspices of the government and the Indian shipping industry.



G S Dhillon (1975-77)

DREDGING THE DEPTHS

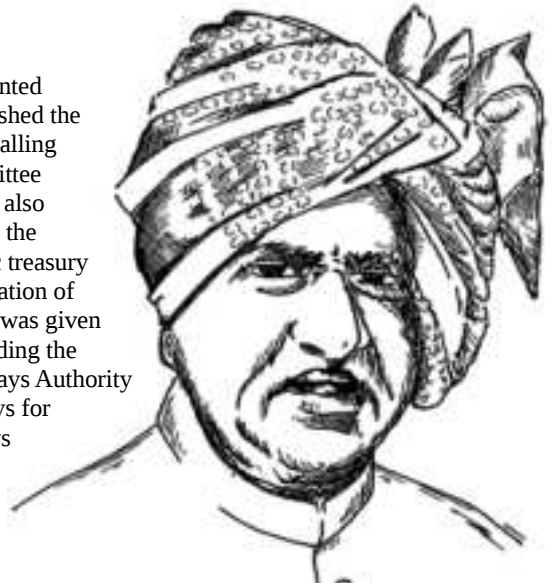


During Dhillon's tenure, Dredging Corporation of India was established in 1976. It provides integrated dredging and related marine services for promoting the country's national and international maritime trade, beach nourishment, reclamation, inland dredging, and environmental protection. The aim was ultimately to become a global player in the field of dredging. DCI helps ensure continuous availability of the desired depths in the shipping channels of the major and minor ports, Indian Navy, fishing harbours and other maritime organisations. It further serves the nation by offering capital dredging for creation of new harbours, deepening of existing harbours or maintenance dredging for the upkeep of the required depths at various ports along the 7,500-km coastline of India.

Rajesh Pilot (1985-89)

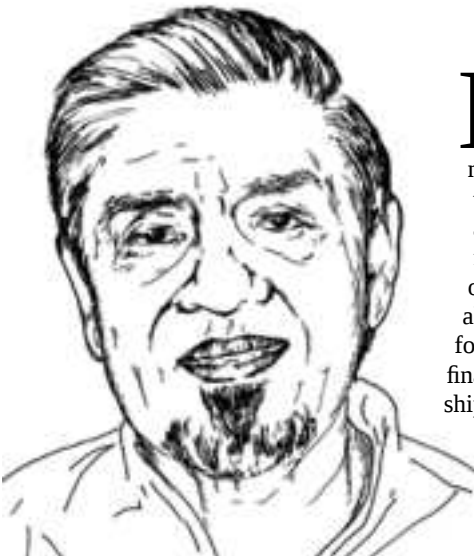
THE REFORMIST

As surface transport minister handling shipping department, Rajesh Pilot played a major role in introducing market-oriented reforms in shipping industry. In 1986 the government abolished the Shipping Development Fund Committee (SDFC) with liabilities totalling \$352 million. The need-based funding policy adopted by the committee to achieve self-sufficiency in shipping was no longer working. This also marked the beginning of the diminishing role of state in developing the shipping industry. The liabilities were transferred back to the public treasury and a new instrument – the Shipping Credit and Investment Corporation of India (SCICI) was formed to take over ship finance matters. SCICI was given the mandate to restructure the debt of 10 strongest companies including the forceful merger of seven of them. He also set up the Inland Waterways Authority of India in 1986 for regulation and development of inland waterways for the purposes of shipping and navigation under the Inland Waterways Authority of India Act, 1985.



Jagdish Tytlor (1992-96)

ERA OF LIBERALISATION



He is the shipping minister to preside over effective privatisation of the shipping industry including ports and ships as he was part of the PV Narasimha Rao cabinet, which opened up Indian market doors to liberalisation. In 1993, Indian vessels were encouraged to accept private investment. Foreign investment up to 51 per cent was allowed in companies that owned and operated ships carrying Indian flag. The procedure for scrapping of vessels was simplified and control on repair of ships in foreign shipyards was relaxed. Companies were allowed to procure ships without going through the protracted procedure for approval. Shipping companies no longer received any concessional finance from the government and the system of government guarantees for ship acquisition was discontinued. In 1992, Gujarat Pipavav Port Limited was incorporated to construct, operate and maintain an all-weather port at Pipavav in Gujarat and that became the country's first private port. The port started operations in 1998.

Arun Jaitley (2000-01)

FIRST SHIPPING MINISTER

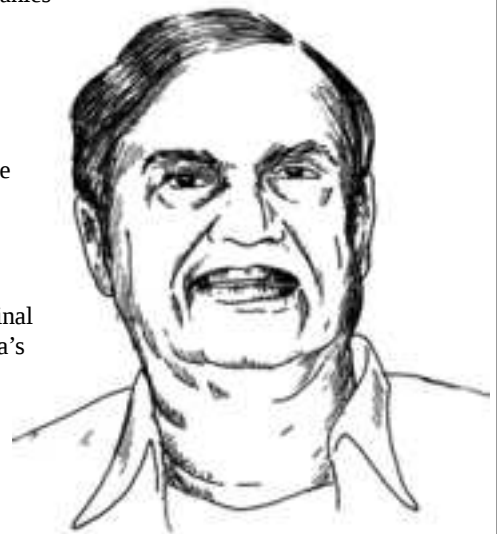


In 2000, the government decided to bifurcate the ministry of surface transport into ministry of shipping and ministry of transport and highways. When Arun Jaitley was elevated as a cabinet minister in the Vajpayee government in November 2000, he became the country's first minister for shipping. During his tenure, Ennore Port, the country's only corporatised major port and a registered company was inaugurated in February 2001. The port set up under the Companies Act, is outside the purview of the Tariff Authority for Major Ports, the tariff regulator for 11 of the 12 ports owned by the government. The port started full-fledged operations in December 2002.

TR Baalu (2004-09)

NEW TAX REGIME

The credit for providing a level-playing field for Indian shipping companies vis-a-vis international ones would go to TR Baalu as it was during his regime that the government introduced tonnage tax system for shipping companies in 2004-05. Till then, the shipping industry, like any other industry in the country, was subjected to corporate tax whereas several leading nations accounting for 85 per cent of the world shipping, followed the tonnage taxation system or dual taxation system, where tonnage taxation is optional. Shipping companies were less inclined to invest more in additional tonnage due to high corporate tax and as a result the shipping tonnage in the country was in a stagnant state. During Baalu's time, the Cabinet Committee on Economic Affairs approved the revised proposal for time-bound implementation of International Container Transshipment Terminal (ICTT) project at Cochin Port on January 13, 2005. Besides, in view of India's leading position as merchant navy supplier to global needs and the stiff challenge faced by India from Southeast Asian countries like Philippines and China, an Expert Committee including representatives of the University Grants Commission recommended formation of an Indian Maritime University (IMU) by an Act of Parliament. Later IMU was established in Chennai in 2008.



GK Vasan (2009-to date)

USHERING IN A NEW ERA



In 2009, when the domestic shipping industry was reeling under shrinking cargo volumes, the shipping ministry decided to provide cargo support in the form of right of first refusal & policy of Free On Board (FOB) import. An expert committee was also set up to plug loopholes in Section 406 and 407 of the Indian Merchant Shipping Act, 1958. Accordingly, Indian Coastal Trade was reserved for Indian flag vessels through incorporation of cabotage regulations in the Act. From 2005 to 2012, a total of 449 vessels have been added to Indian fleet. The Minister also launched the Maritime Agenda 2020 in January 2011. The vision document envisages the plan of the Ministry for the decade 2010 to 2020. It provides a roadmap for the comprehensive development of the maritime industry. The objectives of the Agenda include creation of port capacity of about 3,200 mmt to handle an expected traffic of about 2,500 mmt by 2020 and increasing the performance of our ports on par with international ones. The Agenda plans enhancement of tonnage under the Indian flag and increase in the share of Indian ships in our EXIM trade. As part of this effort, it plans to enhance India's share in global ship building to 5 per cent from the present 1 per cent and raising the share of Indian seafarers from the current level of 7 per cent in the global shipping industry to at least 9 per cent by 2015. The Ministry of Shipping is also in talks with the Ministry of Finance for exemption of Minimum Alternate Tax (MAT) on the book profit on sale of qualifying ships and its inclusion within tonnage tax regime. The Indian shipping tonnage also crossed 11 million GT mark in 2012.

Engineering the new era



Ports | Power Projects | Dams | Roads | Bridges | Metros

Buildings | Special Foundations | Marine Structures | Major Irrigation Projects | SEZs



Piling work - Qatar

Navayuga is fulfilling the dream of its visionary founder and making contributions to the emergence of India as a global super power. Navayuga has been making big strides in developing world class infrastructure - Highways and Bridges, Ports, Irrigation, Urban Transportation, Power Plants, SEZ and Special Foundations.

We are proud to have contributed significantly to the development of key infrastructure in the National Capital Region even as we build several other projects across the country and in select international locations. We are excited about the opportunities the New Year will open to us as we make strong progress in our journey to be amongst the top infrastructure conglomerates.

Our efforts to 'Engineer the New Era' took us to the Middle East in 2008, China in 2009 and now we step forward into newer territories.

We remain steadfast on our commitment to create world class infrastructure, adopting latest technology solutions that provide an optimum blend of quality, speed and safety. The strong foundation of our corporate values coupled with our team's dedicated efforts will ensure we earn the trust of society and of clients, and will bring pride to our team, our associates and all our stake holders.

Navayuga Engineering Company Ltd.

Corporate Office: 1259, Lakshmi Towers, Road No. 36, Jubilee Hills, Hyderabad - 500 033. AP. INDIA.
Tel: +91-40-23557196-99, Fax: +91-40-23557190/23550541. Email: nec@navayuga.com

RECENTLY some bad news came for the Indian car exporters when Sri Lanka decided to reduce its imports by increasing duties in order to bring stability in the domestic foreign exchange market. Exchange rates in the island nation have been on shaky grounds throughout 2012, with the Sri Lankan rupee falling to a new record low of 132.20 against the US dollar. Market dealers attributed the drop to importers' demand for dollars and the country hence reduced imports. This development was certainly bad news for India, as Sri Lanka is its preferred export destination. Sri Lanka's imports from India include mainly motor vehicles, sugar, chickpeas, onions and pharmaceuticals, while it exports mainly

Neighbour that Matters

Sri Lanka is set to give more business to Indian importers and exporters in the near future while its ports are getting transformed into logistics hubs.

spices, gems, tea, textiles and some food products such as biscuits. As expected, the recent developments in the country have hit the Indian car exporters badly, with companies like Bajaj Auto forced to ship fewer vehicles. Prices of its motorcycles and three-wheelers have shot up by 29 per cent and 32 per cent respectively in Sri Lanka after the import duty hike. The company will pare its overall exports to Sri Lanka by about 60,000 units this fiscal year. The company's average annual sales to Sri Lanka are 264,000 units.

Such sporadic happenings notwithstanding, Sri Lanka does provide a lot of business to the Indian industry and exporters. In fact for any Indian exporter who is on the lookout for a new avenue, Sri Lanka is a good choice due to its easy procedures and liberalised policies. The country is a contracting party to the General Agreement on Tariffs and Trade (GATT) and is also the founding member of the World Trade Organisation (WTO). For decades, the country has assumed a proactive role as a driving force to trigger trade liberalisation in the South Asian region. Sri Lanka is also a member of South Asian Free Trade Area (SAFTA). It shares healthy trade relations with India after the two countries signed a free trade agreement (FTA). According to the World Bank, globally, Sri Lanka stands at 53 in the ranking of 183 economies on the ease of trading across borders. Exporting a standard container of goods to Sri Lanka requires 6 documents, takes 21 days and costs \$715. Importing the same container of goods requires 6 documents, takes 19 days and costs \$745. These figures are much less than the global average.

Considering such facts, it is no wonder that bilateral trade between India and Sri Lanka had reached the \$5 billion mark last fiscal, which is a record number. According to Sri Lanka Customs, bilateral trade between the two countries reached \$4.46 billion during the first 11 months of 2011, an increase of 71.94 per cent, from the corresponding period of 2010. Of the total figure, India's exports to Sri Lanka accounted for \$3.97 billion. Both Delhi

KANKASANTHUREI DEEP WATER PORT

- India-Sri Lanka signed MoU in July 2011 to develop the port
- Lower transit time for goods from India
- Ship wrecks removed; dredging under progress

TRINCOMALEE

- Port related Industries
- Second best natural harbour
- Has land 10 times the area of Port of Colombo
- Targeted for bulk and break-bulk cargo

OLUVIL PORT COMMERCIAL AND FISHERIES

- Fisheries Hub
- ₹7.5 billion investment

COLOMBO PORT CONTAINER MEGA HUB

- Largest business port
- 15% of the transshipment cargo is handled
- After expansion, the port will increase its capacity from 4 million teu per annum to 15 million teu.

GALLE PORT CRUISE SHIPPING CENTRE

- Destination for pleasure yachts

HAMBANTOTA PORT

- Services and Industrial Port
- Developed with Chinese funding
- Eases congestion at Colombo Port

THE SRI LANKAN PORT NETWORK

and Colombo hope to expand it further by relaxing regulations and diversifying exports of goods and services. For instance, Sri Lanka can import many food items from India that cannot be manufactured locally. To boost the bilateral trade, Sri Lanka has also come out with a string of incentives to overseas investors in strategic sector such as a 25-year tax. This incentive was extended to NTPC, which is setting up a 500-mw power unit in Sri Lanka. Already, Indian companies such as Taj Hotels and CEAT have become household brands among the Lankans. Indian investors have also been enjoying the benefits of the constitutional guarantee of investments, duty-free market access under the ISFTA, Double Taxation and Investment protection treaties.

Sri Lankan authorities, however, have voiced their concern about the unfavourable balance of trade. India is also concerned about this situation, and is taking measures to correct the imbalance. For instance, New Delhi is pledging to import raw rubber and set up an export-oriented synthetic rubber manufacturing plant in Sri Lanka. This would again be a big business opportunity both for the Indian and Sri Lankan importers and exporters. "India is already the largest source of imports, tourists and investments for Sri Lanka. But there are concerns about this one-sided relationship," says Manab Majumdar of the Federation of Indian Chambers of Commerce and Industry (FICCI). "There are possibilities of developing Sri Lanka as a processing hub for products like gems and jewellery or agro-based products, which would benefit both countries," Majumdar added. Recently, the Southern Gujarat Chamber of Commerce and Industry (SGCCI) has signed a Memorandum of Understanding (MoU) with the Federation of Chambers of Commerce and Industry of Sri Lanka (FCCISL) on cooperation between the two chambers. The SGCCI has expressed keen interest in working closely with Sri Lanka in the diamond, gems and jewellery, agro-processing, manufacturing and engineering industries.

Indeed, so far the going seems to be good for the war ravaged country. For this year, the Asian Development Bank (ADB) forecasts the economic growth to maintain its strong performance of the

Next wave of port development



MANGALA P B YAPA

Sri Lanka indeed is "trade smart", and this is reflected well in the fact that it is making all efforts for modernisation and development of port and logistics facilities, which in turn will fetch more business for the country. The country has recently decided to position its ports as logistics hubs to help attract foreign investors for export-oriented industries to generate the cargo volumes needed to continue to lure big shipping lines. Sri Lanka Ports Authority chairman Priyath Wickrama was quoted as saying by the media that ports will provide warehousing and other services to offer "just-in-time" supply

systems to attract large manufacturing companies from India. "Today, major shipping lines call over at the Port of Colombo, primarily to transship containers to the Indian subcontinent. Almost 60 per cent of Sri Lanka's transshipment is bound for India.

Unless Sri Lanka increases substantially its base cargo in the form of export products to the USA, Europe and Asia, Sri Lanka may not be in a position to lure main line vessels," he said.

Sri Lanka is currently building \$2-billion deepwater ports, one next to the existing harbour in Colombo and the other on the south coast close to the main shipping route. "Sri Lanka needs a paradigm shift in its port development strategy. The most modern port development strategy transforming the port from a mere interface between maritime transport and land transport into a hub of seamless logistics chain

and logistics value-creator or value-adder has come to stay and this will be the next wave of port development strategy to be followed by Sri Lanka in time to come," said Mangala P B Yapa, Managing Director & CEO, Colombo Dockyard Plc.

Already a large number of foreign investors have expressed their desire to invest in the ports sector and ports-related development. One of the foreign investors, China Merchants Holdings International which is building a deepwater container terminal at the Colombo Port, has expressed interest in investing in other Sri Lankan ports, especially in Magampura Port. The Chinese are attracted to Sri Lanka because of several key advantages such as location, low operational cost, enthusiastic and motivated labour force and so on. Besides, easy access to south Asia and many other regions, open economy and literate labour force are among its strategic advantages.



“Our target is to reach \$5 billion in FDI by 2015 only through port sector.”

— Dr Priyath Bandu Wickrama
Sri Lankan Ports Authority

last two years. The growth is expected to be high around 7 per cent, taking into account the favourable contribution from the investment, exports, tourism, remittances, and consumption. The growth for 2013 is expected to bounce back to 8 per cent with increased domestic and foreign investment as the global economy starts to pick up next year. Such forecasts indeed do give reasons for the Indian industry to continue maintaining its strong foothold in the island nation's economy. 

Panama Canal Expansion

The expansion project to be completed in 2014 will help the canal to handle post-Panamax mega ships.

Sreekala G



HISTORY

The canal is a passageway between the Atlantic and the Pacific Oceans. Now considered as the greatest engineering feat in the world, building the channel across the Isthmus of Panama began in 1882.

But disease, geography and politics delayed its completion until 1914. Over 27,000 workers lost their lives during the construction. Before the Panama Canal was built, traders from Europe, who travelled by sea had to go down the coast of South America and around the Southern most tip of the North American continent to get to places on the west coast of North and South America, like California. This was a very dangerous trip, due to still waters and presence of icebergs.

When it was opened, the canal revolutionised sea transport. A ship takes about eight hours to travel the full length of the Panama Canal.

Project components: The project created a new lane of traffic along the Canal by constructing a new set of locks. In order for ships to cross the 80-kilometre-wide Isthmus of Panama, they must pass through the fresh waters of Lake Gatun, which sits at 26 metres above sea level. To get there, ships first progress through a set of steel locks that raise them, in stages, from sea level up to Lake Gatun.

On the other side of the lake, they pass through more locks that lower them back to sea level. As the locks are smaller in size, it cannot handle big ships.

The maximum size of the ships that can transit the canal is known as the Panamax. Now a third set of locks are being constructed, which are 427 metres long and 55 metres wide, the size of four football fields.

THE PROJECT

The Expansion will double the capacity of the Panama Canal at an investment of \$5.5 billion and allow more and larger ships to transit. The plan was presented by the then Panamanian President Martín Torrijos in April 2006. Subsequently, the project officially took off in September 2007. The project is moving ahead of schedule and is expected to open in August 2014, coinciding with the 100th anniversary of the canal.



FIRST SET OF LOCKS UNDER CONSTRUCTION DURING 1911

TRADE

The canal serves more than 80 countries and is a thoroughway for 144 international maritime routes. Since its opening nearly 1 million vessels have transited the waterway. The top five countries that use the canal most are: the United States, China, Japan, Chile and South Korea. In 2011, Panama Canal broke a record in freight volume, reaching 322.1 million tonnes in one year. This figure improved record by 7.1 per cent from 2010. Direct contributions from the Panama Canal to Panama budget this year will total \$985 million, an increase of \$147 million as against what was budgeted for 2011.



ADVANTAGES

The new locks will handle ships up to 49 meters wide with drafts of more than 15 metres. Currently, the canal allows Panamax cargo vessels with the capacity to move 5,000 twenty-foot equivalent units. Once the expansion is completed, post-Panamax mega-ships will be able to pass through the canal. The largest of these vessels will have the ability to carry up to 13,000 cargo containers. The Panama Canal Authority (ACP),

an agency of the Panama government, projects that in the next 20 years cargo volume transiting the Canal will grow at an average of 3 per cent per year. According to ACP, it will help grab more container shipping volumes as port on its competing routes – US intermodal System and Suez Canal – are investing in capacity, location, and maritime and land infrastructure to serve post Panamax container ships. Some political leaders in

Panama in fact believe that the canal will generate enough wealth to transform it to a first world country. The expansion also has the potential to increase trade between Asia and the US. Post-Panamax ships are currently only able to unload at West Coast ports, where cargo was shipped by rail to markets in the eastern United States. After the expansion, these ships will be able to unload on the East Coast, lowering the cost of Asian goods.



CRITICISM

Opponents contend that the project is based on uncertain projections about maritime trade and the world economy. Some point out that canal usage is seasonal and that even during the few months when it is most crowded, the bottleneck that slows traffic is not the locks but the narrow Culebra Cut, in which there is a limited capacity for large ships to pass one another.



ENVIRONMENTAL IMPACT

The primary concern is that the expansion could contaminate Panama's main source of drinking water. There are growing concerns the water of Lake Gatun could become brackish, or have more salinity than fresh water. 



NEW LOCKS ONCE READY WILL ALLOW POST-PANAMAX MEGASHIPS TO PASS THROUGH THE CANAL

IN NEED OF A REVOLUTION AGAIN

There is no dearth of agri-products for export in India, but the perilous state of warehousing is stopping exports from flourishing.

It is no longer right to attribute price rise of food grains in India to drought and consequent food shortage. The rotting mountains of food grains lying in the open areas of warehouses in many parts of the country telltale a story of mismanagement, rather than that of nature's wrath. And the recent upward revision of food grains production in India for this fiscal may just make the warehousing situation worse, especially if the country is unable to export more

of these agri-commodities. According to the 3rd advanced estimates for 2012, India's food grain production is expected to touch 252.56 million tonnes (mt) with 103.41 mt of rice and 90.23 mt of wheat. Also, cotton production is estimated to higher than predicted. The present production is far higher than consumption and storage limit of the country – India is expected to consume around 95 mt of rice, 76 mt of wheat and 22 mt of sugar. As a result, the Union

Agriculture Minister, Sharad Pawar, has sought more exports of agriculture commodities. Presently, India has allowed around 7 mt of rice, 2 mt of wheat and 3 mt of sugar.

If additional exports of agri-commodities are allowed, then it could remove the pressure over the warehouses in the country as well as will give farmers more profit. However, this may prove to be too much of well-wishing, as exports

EXPORT OF AGRICULTURAL PRODUCTS FROM INDIA (2008-2009 TO 2010-2011)

COMMODITY	PULSES	RICE BASMATI	RICE (OTHER THAN BASMATI)	WHEAT	OTHER CEREALS	TEA	COFFEE	TOBACCO UNMANUFACTURED	SPICES	CASHEWNUT SHELL LIQUID	CASHEW
											
'08-'09	136.27	1556.41	931.89	1.12	3999.65	207.46	174.08	208.31	673.87	10.82	126.15
'09-'10	99.91	2016.87	139.54	0.03	2892.41	207.53	157.41	230.8	663.21	11.23	117.99
'10-'11	205.69	2186.45	96.08	0.44	3187.86	233.4	222.86	207.55	749.03	11.36	91.56

of several agricultural commodities are already facing hurdles this year. Even as quotas for sugar and wheat exports had been raised, the actual figures have not seen any significant rise. Coffee exports have also faced viability issues, as prices in global markets have been lower than in India and recessionary conditions in Europe have impacted demand. Maize, which initially saw some exports, is now facing quality issues, hurting India's reputation as a quality exporter. "Wheat remains abundant around the world and prices are expected to remain bearish," said Rabo Bank in a report on agri-commodities. Availability of sugar in the global markets is not much different. Unless there are end-of-season crop losses, Brazil's stock is estimated to be in surplus.

The situation indeed is grave for India, considering the perilous state of its warehousing. Estimates of the Food and Agricultural Organisation show that the production of food grains in India has been steadily increasing due to advancement in production technology, but losses have remained static at 10 per cent. This means that the loss of food grains is also increasing with an increase in production. The main reason for this is improper storage, and an average of 6 per cent out of the total 10 per cent loss takes place during storage at warehouses. The economic losses due to food grain damage are as high as ₹50,000 crore (\$8.9 billion) per annum. Apart from food grains, most warehouses do not contain adequate scientific and technical facilities to even store fast perishable commodities

like sea food, fruits, vegetables, dairy products, and meat.

A report by a task force constituted by the Union agriculture ministry on development of cold chains in the country has estimated that almost 30 to 40 per cent of the horticulture produce is wasted annually because of inadequate storage and transportation facilities. Similarly, a study by New Delhi-based ICRIER puts the losses at around 15-50 per cent, particularly for perishable commodities. The study shows that with 1999 as base year, India's fruit and vegetable production is expected to rise to 66.9 mt and 131 mt respectively by 2010-2011 and almost double itself by 2015-2016. But the actual supply of fruits and vegetables would be almost 20-25 per cent less than the production because of huge post-harvest losses.



As per the World Bank's report on the Logistics Performance Index, a 0.5 per cent decrease in logistics cost leads to 2 per cent growth in trade and a 40 per cent increase in the range of products that get exported out of the country.



It's now become a norm that a large chunk of food grains procured by the FCI keeps lying in the open under the cover and plinth (CAP) facilities for years together, though food grains should not be stored in CAP for more than one year. In 2010-2011 too, almost 50 lakh tonnes of the total food grains procured would have to be stored in the open, mainly in Punjab and Haryana, the two states that contribute more than 80 per cent of food grains to the central pool. "We admit that storage under CAP should not exceed more than six months to one year, but we don't have an option," managing director of CWC was quoted as saying by the media. Indeed, millions of rupees are being pumped into increasing food production in the country, but the urgent need to augment storage and warehousing facilities is not considered on the same scale.

Such a sad state of affair exists because the warehousing industry of India is non-regulated, with warehousing yet to be given a formal industry status by the Indian government. The sector lacks basic infrastructure. Indian Warehousing – which is an important constituent of the logistics sector – is to date dominated by small players, who have low capacities and poor deploying, handling, stacking and monitoring technologies.

Conventionally warehouses in India were considered only as basic stores or godowns. The late 1950s and the early 1960s (when the CWC and FCI were established) saw the concept undergoing a transformation, with both CWC and



(QUANTITY IN '000 TONNE)

SESAMUM SEED	NIGER SEED	GROUNDNUT	GUARGUM MEAL	OIL MEALS	CASTOR OIL	SHELLAC	SUGAR	MOLASSES	FRUITS/ VEGETABLE SEEDS	MARINE PRODUCTS	COTTON RAW INCLUDING WASTE
											
196.98	13.72	297.89	258.57	6742.94	357.26	6.03	3332.08	172.2	8.54	464.9	457.56
215.73	6	340.24	218.47	4671.13	398	4.18	44.05	31.1	8.89	709.88	1357.99
343.03	11.82	418.56	403	6797.86	411.21	3.88	3241.34	1822.88	11.14	800.95	1258.09



FCI setting up their own warehouses to enhance the nation's storage capacity for foodgrains. Thereafter, CWC expanded the scope of its warehouses to also include industrial goods.

Today, the Indian warehousing sector can be broadly divided into two main categories – government controlled and owned by the private players. The first category represents warehouses owned by government organisations, namely CWC, FCI and the Customs Bonded Warehouses; the second category consists of private third-party logistic warehousing providers such as Om Logistics, and the unorganised storage services providers.

The market share of the various players is as follows: CWC and SWCs occupy 2 per cent and 3 per cent of the market share respectively, whereas FCI holds another 3 per cent. The third-party logistics providers who come under the organised sector category account for about 5 per cent of the Indian warehousing industry whereas the unorganised private players account for a whopping 87 per cent of this sector.

The main focus of the government-controlled warehouses is to provide basic storage facilities for foodgrains, and agri and industrial commodities like

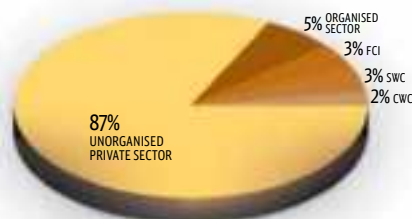
cement and metals at the lowest possible cost. They also undertake the task of custom-linked warehousing for imports and exports. However, these warehouses do not provide customised solutions or specialised storage conditions needed for some specific goods. Furthermore, they are also not equipped to provide integrated logistics solutions such as transportation and value-added services.

The organised private sector warehouses, on the other hand, provide specialised value-added services. These warehouses take over logistics responsibility from the manufacturers. The unorganised private service providers however offer only basic storage facilities at very low cost. Indeed, the first main challenge for the industry is its unorganised and unregulated status. The industry is highly unorganised, comprising numerous competitors who often have only small storage spaces. What's more, the number of warehouses in the airports, and seaports is insufficient. Main reasons for this are lack of funds with the government and a very low participation of private sector in developing warehousing infrastructure. Moreover, there is no uniformity about the location of logistics facilities across the nation, as it is governed by factors such as entry tax, octroi and other taxes in each state, rather than on the need of having a well-spread network.

The warehousing cost in India is high when compared to the corresponding figures for major economies. Under the existing tax structure, 2 per cent Central Sales Tax (CST) is levied on inter-state sales. As a result, companies have had to maintain small warehouses

and depots in every state in order to avoid paying CST on inter-state sales. These multiple warehouses have resulted in high inventory costs, increased working capital and other overheads. As per the World Bank's report on the Logistics Performance Index, a 0.5 per cent decrease in logistics cost leads to 2 per cent growth in trade and a 40 per cent increase in the range of products that get exported out of the country. According to the Confederation of Indian Industry (CII), improvement of logistics and warehousing industry can make Indian industries more cost-competitive, thereby enabling a GDP growth of 11 to 12 per cent, from the existing 7 to 8 per cent. Apart from the above stated bottlenecks, there is a shortage of well-trained and skilled warehousing manpower in India. The training centres and other systems required to develop skilled personnel is also almost negligible. Consequently, the Indian warehousing industry is always seen battling to meet customers' demands where services and quality is concerned.

Indeed, lots of bottlenecks continue to restrain the development of the warehousing sector. While several initiatives like rationalisation of taxes and investment in infrastructure have been initiated, a lot remains to be done as far as organising and modernising this sector is concerned. Granting an industry status to the logistics and warehousing sector, efficient implementation of infrastructure projects, simplification of the regulatory structure and making available skilled manpower are critical to the growth of the Indian warehousing industry. The growth of the cost-competitiveness of many industries rests squarely on the development of the warehousing industry. Hence, an increased focus on this sector both by the government and the private players will go a long way in strengthening the economic base of the country. With the rapid growth of both primary commodity and end-user retail markets, the need for a long-term policy perspective and a stable and well-regulated growth of warehousing infrastructure has thus become critical to sustained economic growth. 



FCI: Food Corporation of India; SWC: State Warehousing Corporation; CWC: Central Warehousing Corporation

A leading multinational ice cream manufacturing company found that its supply versus demand was badly affected simply because its production and storage facilities were inadequate to store the pre-made stocks in India. For the company, this was the first time it was offering its products here, and that too on a pan-India basis.

Snowman Logistics, the first company in India to set up a cold chain, came to the rescue. The quality team confirmed that Snowman can provide the temperature of -25°C to store the pre-built stocks. For the first time, the stocks were stored for a longer duration to offset the demand during the season and since then, there has been no looking back.

For a predominantly agricultural country like India, the need for extending the shelf life of a produce has always been a critical requirement and therefore, the above case study is not a unique one, limited only to cold products such as ice cream. On the other hand, the demand for cold chain supply in India is pegged at \$2.6 billion and is forecasted to reach \$9 billion by 2015, driven by demand from products of temperature controlled industries, especially fresh agricultural products, manufactured food, chemicals, military services, and medical vaccines.

With shifting demand for products of temperature controlled industries, cold supply chain has taken on a more important role in supply chain management. Owing to its ability to extend the shelf life of consumables considerably, cold chain management gives a huge competitive advantage to producers, exporters and importers of temperature controlled industries.

Can cold chain be the solution to agri wastage?

Today, India is the fifth largest retail market worldwide and 62 per cent of its retail is food (fresh and processed). With farmers moving towards horticultural crops, there is a growing need to increase the longevity and shelf life of farm produce. The country has a huge opportunity to become a leading global food supplier only if it has the right marketing strategies, and of course, efficient supply and cold chains

EXTENDING SHELF LIFE



For the consumables industry in India, it could well be the next big thing. Why is cold chain such a hot topic now?

Anuradha M

management. However, cold chain logistics remains a nascent industry. Some of the key drivers include growth in organised retail, a shift towards horticultural crops, and growth in processed food sector and government initiatives. As a result of increasing volumes and global exposure, along with domestic development, burgeoning parity, the market is growing, but this growth is fragmented and disjointed. Also, it has its own challenges, some of which are:

- The food supply chain is complex with perishable goods and numerous small stakeholders. In India, the infrastructure connecting these partners is very weak.

- Demand forecasting is totally absent and the farmers try to push what they produce into the market.
- Against a requirement of over 31 million tonnes (mt) of cold storage, India has approximately 5,101 cold storage units with a cumulative capacity of nearly 21.7 mt, leading to a loss of about 40 per cent of the agri-produce post harvest.

This, of course, is creating some interesting opportunities, such as a large, untapped market lined by numerous players in the unorganised sector which opens up frontiers for investment and development opportunities. Further, the diversity in terms of India's population with several religious groups with different food habits and culture can be used to the advantage to become the "Halal food hub," the "organic food hub," the "vegetarian food hub" the "sea food hub" and so on.

Warm at heart

According to industry analysts, with integrated cold chains and supply chain management, the country can save ₹75,000 crore (\$13.4 billion) annually by cutting 30 per cent wastage of perishable horticulture produce, besides garnering additional export revenue of ₹25,000 crore (\$4.4 billion). 



Ravi Kannan, CEO and Director of Snowman Logistics Limited, speaks to **Anuradha M** on how the company has grown into a leading cold chain logistics company and carved a niche for itself

HOT STORY IN COLD CHAIN



Q. Can you describe the origin and growth of Snowman Logistics? Also, your own role in its evolution?

A. Snowman Logistics Limited was the first company in India to set up cold chain across the country and was incorporated in 1993 as Snowman Frozen Foods. It was promoted by Amalgam Food Ltd, Cochin and Hindustan Lever. Eyeing the cold chain potential in India, Mitsubishi joined the group. By 1998, 10 state-of-the-art warehouses in accordance with global standards were opened all across India. In 2003, Nichirei Corporation, Japan, joined the board with 15 per cent stake.

By 2004, Snowman had a pallet capacity of 8,829 and started growing at a burgeoning rate. The period between 2004 and 2009 proved to be very significant for the company's growth. In 2006, Gateway Distriparks Limited (GDL) took a major stake and restructured the business.

This was the time I stepped on board. My vision was to grow the company to the next level and to achieve this, I focussed on restructuring, re-engineering and reviewing – the three main pillars

of my goal. I could identify the critical challenges that the company was facing during this time. There were issues in the freezer division; like low occupancy owing to seasonal factors, non-convertible chambers, G+3 racking system and absence of blast freezing facility. Obsolete fleet, poor fuel usage, unskilled labour and high operating cost were other issues that the company was grappling with.

However, the company managed to successfully battle these issues. I believe that employees are our assets. The staff with passion and domain knowledge was handpicked to move the company forward. Most importantly, our chairman, Gopinath Pillai, and Board of Directors have been very supportive in empowering the senior management to run the company independently.

Fuelled by this spirit, together we took Snowman to a glorious path ahead. By this time, we had implemented a new ERP system for achieving operational efficiency. Hence, losses due to stock differences and bad debts reduced drastically as accurate and timely data were available.

State-of-the-art warehouses were built using G+4 racking system and value-added services were introduced, Global Positioning System (GPS) and Geofencing was installed in our vehicles for better tracking, the old fleet was refurbished and measures were taken to ensure that world class systems and processes were introduced in Snowman.

The company also began the consignment agency model to handle the entire supply chain to retail stores in order to provide a one-stop solution to its customers. We even ventured into greenfield projects and providing complete assistance to any foreign player who entered the Indian market.

By following strict quality and safety measures, Snowman earned two certifications, ISO 22000 for food safety and ISO 14001 for environment safety policy.

Megastores were opened in Mumbai, Bengaluru, Chennai and Snowman started expanding. Once the roadmap was drawn, it was decided to fund the



ALL SNOWMAN WAREHOUSES HAVE BEEN BUILT USING G+4 RACKING SYSTEMS



expansion and International Finance Corporation (IFC, World Bank Group) showed keenness to invest and picked up 20 per cent stake in the company.

Over the years, Snowman has built up a strong fleet size of 150+ vehicles and the pallet capacity has grown up to 19,000 pallets. The company has a pan-India network and an extensive reach, in 4400+ Modern Trade Outlets (MTOs). We cater to a wide spectrum of customers, including fruits and vegetables, retail and food products, pharmaceuticals, chemicals, ice creams and chocolates.

The Industry (Global Cold Chain Alliance-India), appreciated and awarded the ICE Indian Cold Chain Expo award for 2011 on behalf of Global Cold Chain Alliance – India for have gone “Above & Beyond” to contribute towards the growth and advancement of the sector.

Q. Which are your primary countries of operation and who are your main customers?

A. Snowman works with customers from various sectors, i.e. pharmaceuticals poultry, confectionary, dairy and F&V. Our major customers include prominent players in the market.

Confectionery: Mars International Pvt Ltd, Ferrero India Pvt Ltd, Cadbury

Quick Service Restaurants: Dominos,

Pizza Hut, Taco Bell, KFC, Subway

Pharmaceuticals: Novozymes, Indian Immunologicals

Ready to Eat: Innovative Foods Ltd, Goli Vada Pav, Al Kabeer Exports Pvt Ltd

Frozen Fruits & Vegetables: Western Farm Fresh, Pagro Foods Ltd, Capricorn Food Products Ltd

Dairy and Ice cream: Baskin Robbins, Mother Dairy, Amul, Gravis Foods Pvt Ltd, Nandini Dairy, Movenpick

Meat and Seafood: Godrej Tyson, Suguna, West Coast Frozen Foods Pvt Ltd

Q. How do you manage your supply chain? Do you use software like an ERP system? If yes, how has it helped you?

A. Our warehouses located across the country are integrated using ERP (Microsoft Navision) to get real-time data. Hence, each and every movement is tracked and recorded in real time, providing maximum efficiency to our supply chain. Prior to this we were using Everest, a legacy system. But there were several issues we faced, such as consolidation of database was not possible making data analysis difficult, warehouse space utilisation was not visible in Everest, value-added services and secondary billing was not possible, FEFO management was not possible, online occupancy, revenue and forecasting was not possible and there was no integration with other departments like finance, HR and fixed assets.

However, the new system transformed the way our business was functioning. We now have multi-location inventory control; FEFO control and lot management; pallet utilisation analysis; sales, collection and target analysis; consignment tracking; integration of all business systems at all locations; and compatibility with other software.

Now, with the new ERP system, tremendous efficiency has been achieved and we have won the trust of our customers too. They are able to access Management Information System (MIS) reports on

inventory in real time. Customer satisfaction is what we aim for, and the new ERP system has helped us build a long-term relationship with our clients.

Q. You have received industry certifications and accolades. Can you share your best practices which smaller cold logistics companies can follow?

A. Quality has been our focus area and we have been trend-setters in the cold chain industry. This is evident from the awards and certifications we have earned to date. We have been awarded ISO 22000 for food safety and ISO 14001 for environment safety by TUV SUD. Logistics service providers should abide by strict quality norms and maintain hygiene of perishables as their first priority. Since these products are vulnerable, proper temperature should be maintained to ensure freshness and enhance their shelf life. Logistics players must strive hard to get advanced systems and procedures to prevent any mismanagement in operations.

Q. Whom do you benchmark your company against?

A. We strive hard to create benchmarks



RAVI KANNAN
CEO, SNOWMAN LOGISTICS

in the industry and innovate continuously to serve our customers better. Being pioneers in the industry and having the first mover's advantage, we have gained excellence in our industry.

Q. Recently, you were in the news regarding International Finance Corporation (IFC) lending \$6.5 million to help you expand your cold storage facilities in various locations in India. What will this funding be utilised for?

A. The IFC debt funding is only a part of the Snowman expansion story. The Snowman Roadmap envisages investments to the extent of ₹200 crore (\$35.8 million) over the next four to five years. The Phase One expansion during 2012-14 will see the warehousing capacity reach 60,000 pallets from the current 19,000 and a complete overhaul of the transportation fleet.

Further, investments will be made in new business verticals, including ambient logistics too. Already, we have tied up term loan funding from financial institutions including IFC and HDFC and internal accruals will also be ploughed back.

Q. How big are your facilities, i.e. warehouse, fleet?

A. Our warehousing solution covers the entire spectrum of ambient, chilled, frozen and blast capabilities. The frozen and chilled warehouses are built with state-of-the-art technology. We have 18 warehouses located at different strategically favourable locations.

All our warehouses are ISO 22000 certified with about 19000 Euro size pallet positions for frozen (-20°C to -180°C) & chilled (+20°C to + 80°C) products, we have G+4 racking system and follow most advanced operational procedures. The largest facility is in Chennai with 5,000 +pallet capacity, followed by Mumbai and Bangalore with 4,000+ and 3,000+ pallet capacity respectively.

Going ahead, in the future, Mumbai warehouse will have the highest capacity of 11,000+ pallet capacity. We also have ambient warehouses for our clients in all major cities. Apart from a robust fleet of GPS installed 150+ reefer vehicles and vehicles for ambient transportation,

we have a pan-India presence with a reach to 4,400+ Modern Trade Outlets (MTOs).

Q. What are the major challenges in your business and how do you handle them?

A. The challenges before us are:

- **Lack of human capital with domain expertise**
Since the industry is still in a nascent stage, there is a serious lack of human resources with cold chain expertise. Also, there is a lack of training institutes imparting knowledge in this particular domain. Therefore, there is a need for workshops/seminars in this field to update individuals about current technologies.
- **High capital cost**
Higher investment in acquiring land and refrigerated equipments hinders players from entering this industry.



The Indian cold chain industry has not matured to the level of other emerging economies. However, there is a big business opportunity here with the booming retail market and pharmaceutical industry. This will enable big retailers to spread their presence in India and eventually, help cold chain players.



But with government subsidies, there is a potential for more private players to join this sector.

- **Erratic power supply**
As refrigerated units run on electricity, products require reefer storage 24x7. But due to frequent power cuts, operational cost of running cold warehouses increases considerably.
- **Industry at a nascent stage**
The Indian cold chain industry has not matured to the level of other emerging economies. However, there is a big business opportunity here with the booming retail market and pharmaceutical industry. But, Snowman has always been ahead of industry standards in terms of technology and services. FDI in retail is in progress and we can hope for a positive outcome. This will enable big retailers to spread their presence in India and eventually, help cold chain players.
- **Last-mile distribution**
As the product moves across the supply chain, the product quality and temperature needs to be same from post harvest to end retailer. Thus, shelf life of many products decreases and sometimes, there are damages owing to improper handling. This is not the case if there are a few intermediates and they all use cold chain.

Q. What is your company philosophy?

A. Our vision is to be recognised as a trend-setter in supply chain management by setting standards in customer satisfaction and continuously improving the process. We build long-term relationships with customers by improving efficiency of distribution processes through innovative and cost-effective logistic solutions of consistent quality and high standard.

Moreover, food safety standards are maintained to ensure that the products are safe and fresh. Since there is a great concern towards the environment from our end, we make sure that our practices do not harm our surroundings. 



**A Port where
Delivery is a Habit
and Excellence its Forte!**



- 24/7 all weather terminal with no tidal restrictions
- Current capacity of 1.2 million TEU
- Seeks less congestion free connectivity both by rail & road
- Terminal over 20% heaviest
- Storage capacity of 16,400 TEU with 400 Reefer points
- Deepest port in India with a draft of 16 m stars
- Strategic tie up with IILCo, Feeder, Freight Forwarders, CHAs, LSPs, Transporters, CTCs and ICDs
- Upcoming CFS facility within the port
- Customs EDI 1.5 connectivity



Experience It to Believe It.

K P C T

A Java Engine in Container Technology

THE UNIVERSITY OF CHICAGO PRESS
50 EAST LEXINGTON AVENUE
NEW YORK, N.Y. 10017-2473

www.kristinadunn.com

Too Heavy to Ignore

Mike Corkhill



Oil companies are currently upgrading their refineries to reduce the percentage output of heavy fuel oil (HFO) from the crude oil barrel due to the imposition of increasingly stringent environmental requirements governing the sulphur content in oil products. Not least of these are the restrictions being introduced in the maritime sector. Yet, until the arrival of the entry-into-force date for these sulphur limits as well as of ways of complying with the requirements, shipowners have no choice but to specify growing volumes of sulphur-rich HFO to power fleets which are being swelled by a raft of new ship deliveries.

Besides marine bunkers, the other expanding HFO market is Japan. Following the March 2011 earthquake and tsunami and the subsequent shutdown of virtually all the country's nuclear reactors for safety assessments and stress tests, Japanese electric utilities have purchased increasing quantities of fossil fuels to compensate. The fuels most in demand are LNG, HFO and sweet crude oil. The latter product, after a simple atmospheric distillation process, can be burned directly in Japan's thermal plants without the need for further treatment.

These recent developments have caught the HFO market by surprise. Refinery operators, not least those in Asia, have embarked upon upgrading their installations in recent years in order to be able to provide the cleaner petroleum products required by stricter land-based and marine environmental policies. For example, Korean refiners, once Asia's largest fuel oil suppliers, have introduced hydrocracking and coking facilities to turn fuel oil into higher grade products such as diesel and now produce hardly any fuel oil.

Achieving a balance between HFO supply and demand is being made even more complex by governments in oil-exporting countries with strong central planning authorities. HFO is usually sold at a discount to crude oil and other refined products so it is advantageous to minimise sales of fuel oil and boost exports of crude and clean products.

In October 2011 Russia introduced a new tax regime for oil exports which lowered duties on overseas shipments of crude oil and increased tariffs on the large volumes of HFO the country has traditionally exported. The policy is aimed at revitalising the country's ageing oil industry, by encouraging both

the development of new fields and the revamping of existing, unsophisticated oil refineries to enable exports of lighter, higher-value petroleum products.

In the face of dwindling supplies and increased demand the price of 380 centistoke bunker fuel oil in Singapore is now 25 per cent higher than it was 12 months ago. Some analysts predict that fuel oil prices at key bunkering ports could reach \$800 per tonne this year, 11 per cent above the highest level reached in 2011.

As bunker fuel can account for over 40 per cent of ship voyage costs, liner shipping companies and other charterers that hire vessels are watching the current bunker market situation carefully. For container ships the bunker price has been an important focus due to the large volumes of oil required to power vessels at the high speeds that have characterised the liner trades.

To cope with rising fuel costs, container shipping lines have implemented a series of measures, including slow steaming their ships; removing smaller, older vessels from their service networks; and adding larger, more fuel-efficient ships to their fleets. A study by DNV has shown that reducing the speed of



◀ MARINE BUNKERS IS THE ONLY HFO MARKET WHICH HAS CONTINUED TO GROW OVER THE PAST DECADE AFTER MAKING DUE ALLOWANCES FOR THE SHORT-LIVED DROP IN USAGE FOLLOWING THE WORLD ECONOMIC SLOWDOWN IN 2009 AND 2010

plethora of newbuildings ordered before the late-2008 meltdown of the financial markets and now entering service. HFO consumption by ships is forecast to continue rising at least until 2015 when one of the deadlines for reduced sulphur levels in marine bunkers laid down in amendments to Annex VI of the MARPOL Convention comes up. That year the global annual demand for bunker fuel oil is expected to fall by 11 million tonnes (mt) and the switch to distillate-based bunker fuel in the European and North American emission control areas will be a major factor in this respect. The introduction of additional Annex VI sulphur restrictions during the 2020 decade will further curtail the use of HFO in the marine market. Approximately 50 per cent of HFO output worldwide is exported and, in the main, the product is shipped in a West-to-East direction.

The pull of the large Singapore bunker market is a notable driver of these eastbound shipments of HFO. In recent years it has become established practice to consolidate parcels of HFO in very large crude carriers (VLCCs) in Europe to lower the cost of shipments to Asia. The global marine bunker market currently consumes approximately 165 mt of HFO each year. Over the longer term, stricter environmental controls and the switch to alternative bunker fuels will reduce both the size of this market and west-east tanker shipments of HFO. Some industry watchers are forecasting that Asian net imports of HFO will drop to 25 mt per annum in 2030 from 55 mt today.

The precise extent to which the bunker market demand for HFO will shrink globally over the next 20 years is difficult to predict. Continuing growth in world trade will result in a small relative increase in overall bunker demand but the measure of HFO's contribution to that market will be determined by shipowner enthusiasm for exhaust gas scrubbers and how oil companies refine crude oil in future. Whatever happens, refinery supplies will be a key determinant of how the marine bunker market of 2030 is configured. 

Courtesy: BIMCO

Mike Corkhill, a technical journalist and consultant specialising in oil, gas and chemical transport, including tanker shipping and chemical logistics.

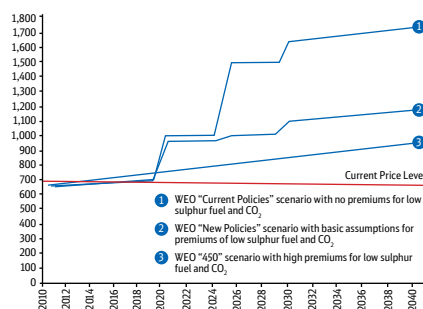
a container ship by 10 per cent can cut fuel use by as much as 30 per cent. However, the slow steaming equation is a complex one and many factors need to be taken into account before an informed decision on slowing down ships across a company's fleet can be made.

The decline in HFO output from Asian refineries has been underway for some time and is set to continue. From 2.95 million barrels per day (mbpd) in 1995, regional output of HFO is set to drop to about 2.25 mbpd in 2020. By that time a number of alternative methods for meeting the marine fuel sulphur restrictions should be established. These include the use of clean-burning LNG and low-sulphur marine distillates as fuel in ships' diesel engines but both these options entail challenges. Another of the alternatives – the fitting of scrubber systems on board to treat engine exhaust gas – permits the continued use of HFO to propel ships. While it will undoubtedly go into slow decline over the longer term, the use of 380 centistoke oil as ship bunker fuel is not about to disappear anytime soon.

The continued demand for HFO in the principal bunkering centres is likely to support a brisk dirty fixtures

Looking ahead bunker prices are likely to nearly double over the lifetime of a vessel

USD/treal 2010 outlook



market as tanker shipments from those refineries still able to supply the product are increasingly called upon to meet diverse market needs worldwide. Demand for HFO will also come from those refineries that have invested in the processes that require the oil as a feedstock to produce lighter products.

Marine bunkers is the only HFO market which has continued to grow over the past decade, after making due allowances for the short-lived drop in usage following the world economic slowdown in 2009 and 2010. Increasing demand for bunkers has been spurred by the continued expansion of the world shipping fleet, due not least to the

Show to Stimulate

For the 25th anniversary this year, SMM is demonstrating more than ever before that it is the world's leading maritime industry show. The event has proceeded on an upward path for nearly 50 years – despite all the crises that the period witnessed.



ANGELIKA SCHENNEN, PR MANAGER MARITIME TRADE FAIRS HAMBURG MESSE UND CONGRESS GMBH, BERND AUFDERHEIDE, PRESIDENT AND CEO OF HAMBURG MESSE UND CONGRESS, PROFESSOR DR MARTIN STOPFORD, MD, CLARKSON RESEARCH SERVICES, THOMAS REHDER, VICE PRESIDENT ECSA (EUROPEAN COMMUNITY SHIPOWNERS' ASSOCIATIONS), DR HERBERT ALY, CHAIRMAN OF SMM ADVISORY BOARD

We are well aware that trade fairs are a mirror of the economic conditions at any given time, but they can and should also create stimulus and open up new possibilities to encourage and support entrepreneurial activity. SMM has succeeded in doing that earlier and it is poised to repeat the success again this year.

What does SMM have to offer this year?

Very briefly, it offers: innovations, products, services and trends, presented by over 2,000 exhibitors from more than 60 nations, on more than 90,000 square metres of exhibition space, with more than 50,000 trade visitors from all parts of the world, and international conferences and meetings on the most important current issues of the industry.



BERND AUFDERHEIDE, PRESIDENT AND CEO, HAMBURG MESSE UND CONGRESS

Altogether there are more than 150 supporting programme items at the 25th SMM, including the Marine Coatings Conference, the CIMAC Circle 2012 (International Council on Combustion Engines), and also award presentations such as the Amver Awards and the Ship of the Year Award.

MS&D, international conference on maritime security and defence hamburg, is one of the four focal areas of SMM 2012. The presentation subjects at MS&D simultaneously provide the theoretical basis and the empirical background for technologies and solutions, which are a particular feature at this year's SMM for secure, environment friendly shipping. The conference is supported by as many as three Federal Ministries (the Transport, Economics and Interior Ministries), demonstrating the importance of the subject not only from the military perspective.

Another focal thematic point will again be "Green Shipping" – alongside the dramatic increases in fuel costs, it is above all tougher international environmental regulations that require efficiency increasing technologies. The latest results from the research and development departments will be on show at SMM.

The third focal area of SMM this year is presented in the SMM Offshore Dialogue, held for the second time now. On 6 September, the industry experts will discuss Offshore Oil & Gas Production, and Offshore Wind Energy, one of the most promising future markets for technologically leading shipbuilders and equipment suppliers.

The SMM Ship Finance Forum will be held for the fourth time, hosted by HMC and Financial Times Deutschland. With this year's key subject "Tomorrow's Champions", the Ship Finance Forum will provide up-to-date answers to global financing questions in shipbuilding and shipping. The ship financing market needs to find alternative financing sources, and to get investors and shipping companies together with new concepts.

SMM 2012 will have more than 30 national pavilions, underscoring the appeal of this undisputed number one among maritime industry fairs. New national pavilions this year are those of Argentina and Bulgaria. The more than 2,000 exhibitors from over 60 nations include more than 150 first-time SMM exhibitors. [img](#)



Ports on India's east coast, which were lagging behind those on the west coast in terms of cargo movement, are now garnering a greater share of the business as the nation's trade with China and other East Asian economies surges. The cargo shift will likely to spur the development of not just port and allied infrastructure on the east coast, but also that of special export zones and the industry in general.

Besides rising trade with China, the demand for coal to fuel power projects in eastern India has also led to growth in the east coast ports. With the increase in rail connectivity, a lot of the coal imported through western ports will be routed through eastern ports and moved by train to meet demand in the hinterland.

The profile of the east coast maritime trade is changing!

East Coast Maritime Business Summit

21-22 September, 2012
Novotel Varun Beach, Visakhapatnam

Host Port



Visakhapatnam Port Trust

Presenting Sponsor & Host Terminal



Visakha Container Terminal

Powered by



Corporate Sponsor



A New Era In Container Terminals



Visakhapatnam Steamship Agents Association

Supporting Partners

To download brochure please logon to: www.maritimegateway.com

❏ CII Haldia Zonal office recently organised a seminar on Port Infrastructure and Logistics



CSCMP India holds its first conference

The Council of Supply Chain Management Professionals (CSCMP) held its first India conference, June 1-2, 2012, in Mumbai. The event, titled *Creative Approaches to Supply Chain Profitability: A Global Perspective from India*, offered new ideas and innovative ways to improve supply chain processes, as well as examples from supply chain management professionals from leading Indian and other global corporations of how they implemented creative solutions that benefited the bottom line. "This premier event was well attended, where regional delegates and international experts debated on futuristic topics," said Anshuman Neil Basu, Executive Director Regional, CSCMP.



Liebherr is awarded the State Prize Clean Technology Austria

Prize in the category "Energy & Efficiency" won by Liebherr-Werk Nenzing GmbH for patented hybrid drive. The prize was awarded by Austria's minister for economic affairs Reinhold Mitterlehner. The world leader in the mobile harbour crane sector convinced the jury with Pactronic® – the first hydraulic hybrid drive for cranes and construction machinery which achieves increased handling performance with reduced fuel consumption. This drive system is characterised by a secondary energy storage device (accumulator). The accumulator is charged by regenerating the reverse power while lowering the load and using the surplus power of the primary energy source.



ICGS Rajtarang commissioned

❏ **ICGS RAJTARANG**, GRSE built Inshore Patrol Vessel (IPV) has been Commissioned by Union State Minister for Defence Dr M M Pallam Raju recently at Chennai in presence of Vice Admiral M P Muralidharan, AVSM NM, Director General Indian Coast Guard & Rear Admiral (Retd) A K Verma, VSM, Chairman & Managing Director, GRSE. The ship is an improved version of Fast Attack Crafts earlier built by GRSE for Indian Navy, with an efficient hull form developed in house and proven after extensive model testing. The ship has achieved a speed of 34.88 knots during trial against the contractual requirement of 34 knots. These classes of ships are cost-effective, fuel-efficient, powerful and are well-suited for patrolling, anti-smuggling, anti-poaching and rescue operations.



agenda



It's time for trade shows, exhibitions and conferences in the maritime sector. Here are a few events lined up for the coming months.



SEP 21-22

East Coast Maritime Business Summit

Venue: Novotel Varun Beach, Visakhapatnam

Attend for: Ports on India's east coast, which were lagging behind those on the west coast in terms of cargo movement, are now garnering a greater share of the business as the nation's trade with China and other East Asian economies surges. The cargo shift will likely to spur the development of not just port and allied infrastructure on the east coast, but also that of special export zones and the industry in general. Besides rising trade with China, the demand for coal to fuel power projects in eastern India has also led to growth in the east coast ports. With the increase in rail connectivity, a lot of the coal imported through western ports will be routed through eastern ports and moved by train to meet demand in the hinterland. The profile of the east coast is changing with the creation of additional cargo-handling facilities. Coastal shipping and inland water transportation, though long neglected, are now poised to play a vital role.

In three business sessions, this conference will discuss:

- SWOT analysis of east coast ports
- increase in throughput
- infrastructure; solving the capacity issues
- Shipper's perspective of east coast ports
- Coastal Shipping: opportunities and challenges
- Cargo forecast; trends in shifting cargoes;
- PPP projects in major ports; improving
- Container cargo handling and terminal development
- LNG terminals and bunkering opportunities

More information: www.maritimegateway.com



OCT 08-10

India Shipping Summit 2012

Venue: Trident Hotel, Mumbai, India

Attend for: India Shipping Summit returns for the eighth event and this year's programme will be taking a prescriptive look at the unique challenges facing India's maritime industry, its ambitions and what's realistically achievable. It's a reality check for India shipping! Some of the sessions are:

Feeding India's ever-growing hunger for energy

The session will focus on India's energy grid, its current and future demands for oil, gas and coal, the origins and

transportation of different energy resources, effects from sanctions and geopolitics, and what it will all mean for the maritime sector.

Indian shipowners and the Maritime Agenda: pie in the sky or a roadmap for the future?

An interactive debate will feature a number of high-profile panellists from different shipping sectors, who will discuss the essential ingredients required for achieving the set-out goals and will comment on some controversial issues.

Foreign investments in India's port infrastructure: not all as it seems

The session will bring to the fore investors' anxieties with regards to the newly announced budget and proposed changes to taxes, separating the true from the false, will look at prospects and uncover new opportunities in one of the most dynamic developing world's economies.

Human resources: taking good care of your assets

An interactive debate will air views and try to identify solutions to a number of issues relating to manpower shortage, industry's ability to attract and train the new generation, criminalisation and abandonment of seafarers, and the continuing problem of piracy.

India's shipbuilding ambition and opportunities in offshore construction

The session will consider the outlook for the world's shipbuilding sector and where and how India is placed in it, assess the sector's ambitions versus the reality and discuss business ideas and innovations.

www.indiashippingsummit.com

SEP 04-07

SMM 2012

Venue: Hamburg Messe Fairground - Hamburg, Germany

Attend for: The 25th SMM (shipbuilding, machinery & marine technology international trade fair Hamburg) which will be held during September 4-7, 2012 is expected to be fully booked. "This puts us ahead of the 2010 SMM, which was already very successful," says Peter Bergleiter, Business Unit Director at Hamburg Messe und Congress GmbH (HMC). "In particular, demand from major Asian shipbuilding nations has increased once again," he adds. Apart from numerous other Chinese companies, China's two leading shipyard associations, CSIC and CSSC, will also be sending delegations. More than 30 countries will set up national pavilions and, for the first time, Argentina will be among them. Over 2,000 exhibitors from 60-plus countries will be represented at SMM, some 150 of them for the first time ever.

Wide Spectrum "Green Shipping" will again be one of the focal points of this SMM. Apart from recent dramatic bunker cost increases, it is mainly stricter international environmental regulations that force the industry to take action in areas such as ballast water management.

Financing is becoming an ever-more difficult aspect of ship new building projects, a fact owed at least in part to stricter legal requirements for financing banks. This will be one of the key topics on the agenda of the SMM Ship Finance Forum (title: "Tomorrow's Champions") held jointly by HMC and Financial Times Germany for the fourth time.

More information: www.smm-hamburg.de

SEP 26-28

Intermodal India

Venue: Bombay Exhibition Center, Mumbai

Attend for: An integrated exhibition and conference event for international trade, logistics, transport and cargo handling in India, the event offers exhibitors from all over the world an opportunity to present their new products, latest equipment and technology innovation and take part in a vast conference programme.

More information: www.intermodalindia.com

DEC 05-07

6th Automotive Logistics India

Venue: Hilton/Janakpuri Hotel, New Delhi

Attend for: The event will focus on how the transportation infrastructure is coping with sales growth, examine the latest developments and strategies, including multi-modal and answer questions like how India is developing the customer service side and if there is an intelligent after-sales parts strategy.

More information: www.automotivelogisticsindia.com

Corrigendum

The name of the company, Unisys, was misspelt as 'Unysys' in the headline of a box item "Unisys and its products", which was carried in the story "Shielding Seas" in the June 2012 issue of Maritime Gateway. We regret the error.



One Voice, Many Challenges

As president of Baltic and International Maritime Council, popularly known as BIMCO, **Yudhishtir Khatau** voices concern over the increasing pressure on shipping industry due to heightened environmental standards. While assuring the regulators of the industry's willingness to become compliant, he urges shipping sector to build one voice.

The shipping industry is going through challenging times. BIMCO is working with its members on certain important developments and the priority currently is on environment. There is an increasing pressure on the industry to ensure that it complies with improved and heightened environmental norms.

While welcoming the need to become more environment-friendly, the shipping industry is doing all it can to become compliant. But it is also important that it does so in a more structured manner so that the target can be achieved in a cost-effective and practical manner. BIMCO is happy with the International Maritime Organisation (IMO)'s adoption of the Energy Efficiency Design Index (EEDI), which is being implemented for new ships and Ship Energy Efficiency Management Plan (SEEMP), which has been adopted for existing vessels.

Shipping today is the most efficient means of transportation for large volumes of cargo across international waters. The shipping industry is effectively serving the world trade and as the world trade grows, there will be an increased activity in this segment. So, the industry is being mandated to reduce emissions. The industry is acting with the same spirit and moving in the same direction as the government regulators are.

The other aspect that requires attention is piracy. The industry today is very aligned on the need for

governments of the world to take all the possible measures to eradicate piracy, which has gripped the shipping segment. We have seafarers at risk here. But there has been a reduction in the number of ships hijacked these days, mainly due to two reasons: One, strong implementation of best management practices on the ships on the advice of BIMCO. Second, due to the increased presence of navies in Gulf of Aden and Indian Ocean.

There has also been increase in the use of armed guards on ships. To standardise the procedures, BIMCO has formulated GUARDCON, a standard employment document for armed guards on ships. Putting armed guards on vessels is only a preventive measure. This does not take away the problem. We should not only work for the prevention of piracy but also for its eradication.

Another concern for us is emission control areas (ECAs). Different countries are putting up different



we need a common global road map on pollution and environmental issues. Different geographical regions should adopt this common road map so that there are no imbalances in the trade.



requirements and this is the biggest challenge we face. When a ship trades in multiple regions, it would be difficult to comply with ECAs which have different norms. If you have North America ECA or European Union ECA, compliance is going to be difficult and trade is going to become impractical. Ships cannot change fuels going in and out of different regions. It will be difficult for ships that move through different geographical locations to create the necessary infrastructure to fuel the ships in different ECAs.

So, we need a common global road map on pollution and environmental issues. Different geographical regions should adopt this common road map so that there are no imbalances in the trade. That is the reason we have always recommended to follow IMO regulations.

Today with the regulations that are facing us we do need one voice. Regulators across the world also would like to have common view from the shipping industry. On few issues like electronic data interchange (EDI), market based measures (MBMs) and piracy, we did manage to get consensus among all organisations including BIMCO, ICS INTERTANKO and INTERCARGO. BIMCO will continue to work very closely with all associations and build further what we call one voice for the shipping industry.

Based on the media briefing at BIMCO's recent AGM in Singapore. 



DNV PETROLEUM SERVICES

Setting Global Standards In Marine Fuel Management

DNVPS Singapore

27 Changi South Street 1,
Singapore 486071
Tel: +65 6 779 2475
Fax: +65 6 779 5636
Email: singapore@dnvps.com

DNVPS Oslo

Veritasveien 1 N-1363
Hovik, Norway
Tel: +47 67 57 9900
Fax: +47 67 57 9393
Email: dnvps.oslo@dnv.com

DNVPS Rotterdam

Zwolsseweg 1
2994 LB Barendrecht
The Netherlands
Tel: +31 10 292 2600
Fax: +31 10 479 7141
Email: rotterdam@dnvps.com

DNVPS Houston

318 North 16th Street
La Porte, Texas 77571, USA
Tel: +1 281 470 1030
Fax: +1 281 470 1035
Email: houston@dnvps.com

DNVPS Fujairah

Port of Fujairah,
P.O. Box 1227
United Arab Emirates
Tel: +971 9 222 8152
Fax: +971 9 222 8153
Email: fujairah@dnvps.com

www.dnvps.com

When it comes to commercial bunker management support, DNV Petroleum Services is the name trusted by ship operators around the world.

With five strategically located laboratories, round-the-clock technical and customer service assistance, and a dedicated team of specialists delivering Total Fuel Management Solutions, we can help you achieve measurable improvements to fuel efficiency, environmental performance, crew competence and cost savings.

From the planning of long-term bunker strategies to smooth fuel deliveries and safe consumption, our services are tailored to your specific needs.

At DNV Petroleum Services, we're setting the global standards in marine fuel management.

Our quality and integrity is your best assurance.



MANAGING RISK



First in Class 200 million GT

As the world's economy grows and changes, our industry is faced with ever greater challenges. At **ClassNK**, our understanding of these challenges and our commitment to helping the maritime industry secure a safer future has made us the leader in ship classification. In May 2012, we became the first classification society in history to have more than 200 million gross tons on our register, and as the world's largest classification society, we are dedicated to ensuring the continued growth and development of the maritime industry around the world. Learn more about our efforts to build a better future for shipping and shipbuilding at www.classnk.or.jp

Global Authority in Maritime Standards

ClassNK **200 million GT**
First in Class
www.classnk.or.jp