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64, Debhog, City Centre, Haldia,
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Fax : 03224 255 778
e-mail : haldia@libertyshipping.com

LUDHIANA
403, PSWC CFS Complex, Plot - A-12,
Phase-V, Focal Point, Ludhiana - 141 010
Tel : 0161 464 3403
Fax : 0161 464 3403
e-mail : ludhiana@libertyshipping.com

JODA
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Tel : 022 2920 2947 / 48
Fax : 022 2920 2946
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IATA Cargo Agent · CHA L-16 · BIMCO Port Agent · World Cargo Alliance · CFA HP

CONTRIBUTORS

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Maritime Gateway

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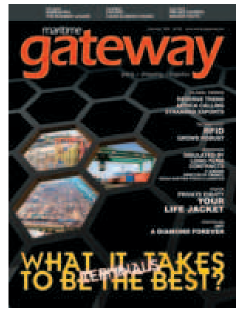

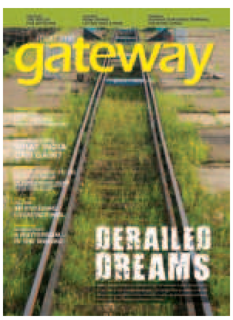

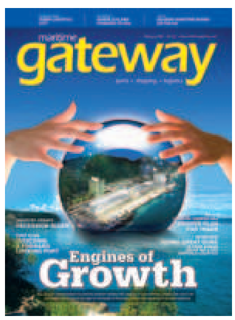

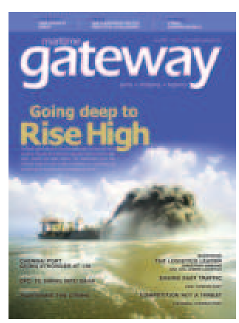

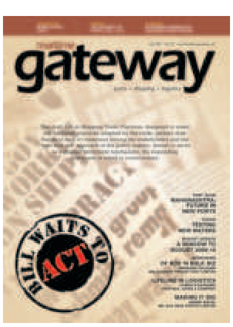

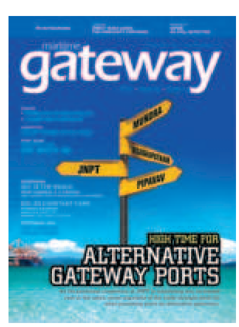

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Publications Director Ramprasad

Associate Editor Radhika Rani G

Sr. Assistant Editor Jagadeesh Napa

Copy Editor Srinivas Reddy G

Sr Designers Vijay Masa, Lakshmi Dandamudi

Designers Yogesh Dabhale, Srinivas P, Nagaraju

Web Upender Reddy V

Head - Business & Events Wilson Rajan
wilson@gatewaymedia.in - 099499 05432

Manager - MarCom Padmapriya C
padmapriya@gatewaymedia.in - 099890 59259

Marketing & Sales
Mumbai Dr Shibu John Head - Strategy & BD
shibu@gatewaymedia.in - 098676 82002

Delhi K N Sudheer Regional Manager
sudheer@gatewaymedia.in - 099101 66443

Kolkata Nikhil Doshi Region Head
nikhil@gatewaymedia.in - 098369 96293

Chennai W Sudhakar Manager
sudhakar@gatewaymedia.in - 097899 81869

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

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Phone : +91 (40) 2330 0061 / 2330 0626
e-mail : subscribe@gatewaymedia.in
write to : Gateway Media Pvt. Ltd.,
407, 5th Floor, Pavani Plaza, Khairatabad,
Hyderabad – 500 004, INDIA
Phone: +91(40) 2330 0061, 2330 0626
Fax : + 91(40) 2330 0652
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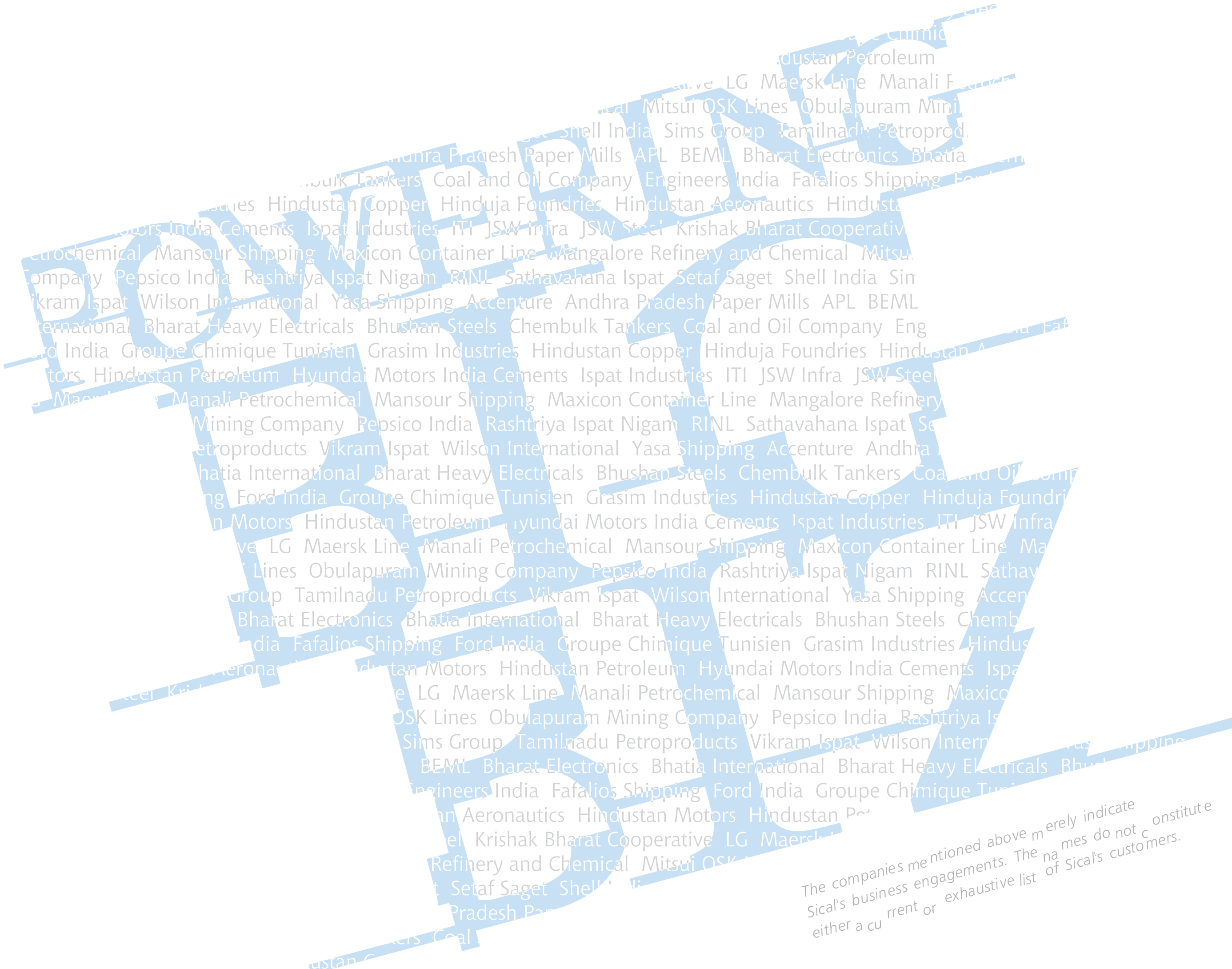
POWERING BIG BIZ
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Changing Patterns
The Beauty of Business

The 21st century is witness to change as never before. The velocity and vigour of changing patterns, in human life, business and even nature have been amusing but most times astounding. If the pace is beyond our comprehension, let's call it recession. Well, a lull in trade came as a tsunami under wraps for the world economies! But change has been the very essence of the big bubble called the cosmos and nature has perfected the art to recover! If that is so, it calls for learning the basics of the laws of nature or rather unlearning the complexities of the laws of nurture.

Maritime Gateway, ever since its launch, has been learning and unlearning things and heading forward to make a mark as a topnotch maritime publication. When we set out on our pursuit a year ago, we hoped to become an essential monthly read, and a resource to all the people connected and interested in this field. And we believe we have been able to deliver – with the cooperation of an inspiring editorial board, content contributors and the support of our readers. Our progress, steady and sturdy, you will admit is evident in the magazine's look, content and quality. Of course, there is always scope for besting the best and we are on our job of crossing milestones.

> *"We are evolving and hope to be a one-of-its-kind maritime magazine in India, quite soon."*

Into our second year and learning the ropes of growing strong, we have come out with a special issue to commemorate our transition to a toddler. While the world is on its job of finding solutions to problems to make life and business worthwhile, we have invited experts from varied fields of the maritime world to share their insights and lessons learnt and unlearnt from the past and the present for a better tomorrow. We sincerely hope our special annual issue with a topical theme will add newer perspectives to our reader fraternity.

The occasion is just right to thank all our readers, advisers, advertisers and well-wishers for their support.

A Big Thank You to you all.

Warm Regards,

Ramprasad
Publications Director
ramprasad@gatewaymedia.in

Beyond the Blue Horizon

Outlook for the Maritime Industry

Admit that the waters around you have grown,
and accept that soon you will be drenched to the bone
… for the times they are a changin'
(Bob Dylan)

Nazery Khalid (nazery@mima.gov.my) is Senior Fellow at Maritime Institute of Malaysia. He has presented talks and papers at many international conferences on a wide range of maritime issues. His research findings and views on various maritime issues and developments are often quoted in the media and have appeared in various publications and journals. The opinions expressed are his own, and he is actually more of an Elvis enthusiast than a Dylan disciple.

BOB DYLAN surely could not have had the post-new millennium in mind when he reflected on the changing times during the Woodstock / Vietnam War era. But how unerringly relevant is his social commentary from four decades ago when applied to contemporary maritime industry scenario!

While no one can claim to have a crystal ball to predict events accurately, one can at least 'do a Dylan' and hone one's observation powers to make a learned, nuanced prognosis of what's to come. This is especially so in a field like the maritime industry, which has the benefit of having centuries of history, mountainous data and information, and tremendous backward and forward linkages with so many sectors, factors, elements, industries and activities. Reflecting on the changing times in the past and at present, and add a fair bit of analysis, can be helpful to gauge the direction of the maritime industry in the years to come.

Amid a sea of change brought by the global economic recession and credit crunch, the maritime sector faces significant challenges that have altered its landscape dramatically. The sharp decline in world trade has wrought serious havoc not seen in the shipping industry for a long time. The shipping sector, which facilitates an estimated 80 per cent of the global trade by volume, has gone on from the darling of investors to a dud in an astoundingly short time. From the heady heights of record breaking performances in almost all sectors of then industry only two years ago, the maritime industry went on a dramatic free fall that has seen players languishing in massive loss. Some have even failed to survive the economic downturn and financial crisis.

When the full impact of the global economic downturn hit, the maritime industry was among the first activities to feel the brunt. This should not come as a surprise given its pivotal role in facilitating much of global trade. In the shipping sector, shipowners who were basking in the glory of historically high demand, freight rates and asset values, suddenly found themselves reeling from dramatic freefall of global trade and the demand for the cargos they carry. Banks cut back lending, leaving shipowners high and dry without access to financing to fulfill their obligations to pay for newbuildings and to come up with working capital to run their business. As a result, they had to cancel orders, leaving shipyards and a host of ancillary services providers high and dry. They were saddled with overcapacity and forced to lay up their vessels and send them to shipbreaking yards. The truly badly hit even exited the business altogether and filed for bankruptcy.

Ports which enjoyed record throughput prior to the crisis reeled from falling demand for cargo and sharp reduction of ship calls. Port operating companies which had splashed huge amounts of capital expenditure to expand their capacity and purchase assets suddenly faced the prospect of big time capacity overhang. Shipyards which previously enjoyed full orderbook of up to three years found themselves saddled with cancelled orders from shipowners who were not able to continue funding their orders. A host of ancillary services providers in areas such as financing, legal advisory, ship management, shipbroking and marine insurance, to name a few, also faced tough times as the demand for shipping services and global seaborne trade headed south.

The impacts of the global economic and financial crisis will take some time to heal. Maritime industry players who survived the devastating tsunami of falling trade and collapsing business models are still picking themselves up and smarting from the experience. The massive aftershock of the recession and credit squeeze will no doubt continue to influence the course of the maritime industry in the years ahead.

The ever changing patterns of production of raw materials and manufactured goods will continue to determine the course of world trade in the near future. China will still be the center of gravity of world trade, and in all probability will continue to command the seaborne flow of materials and goods. As its income per capita and purchasing power grow, and as it continues to be a magnet for the world's MNCs, China's clout in maritime trade will grow in tandem with its ascent as an economic superpower. The nearly simultaneous emergence of other major economic powers such as Brazil, Russia and India will also impact the direction and shape of global seaborne trade and maritime industry development. Expect the global seaborne trade pattern and maritime industry developments to be heavily influenced by the economic development of the so-called BRIC countries in the years ahead.

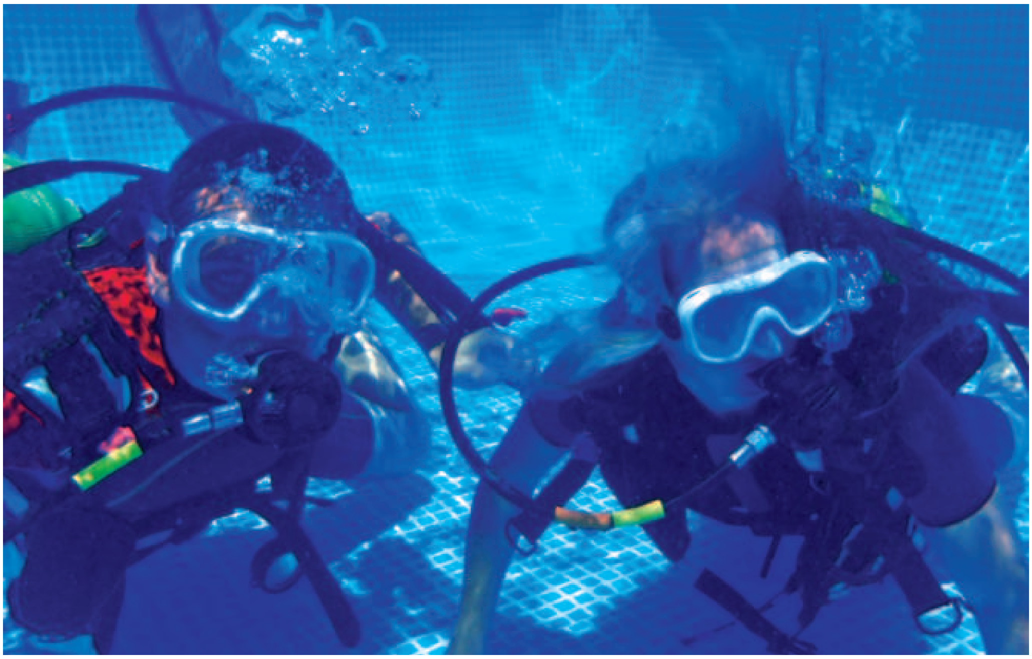
On the Horizon: *The Focus of Shipping Companies would be more of door to door delivery than port to port delivery.*

The convention is known as the UN Commission on International Trade Law (UNCITRAL) Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, or better known as the Rotterdam Rules, is also set to exert its influence on the maritime sector. The rules outline the rights and obligations involved in the carriage of goods through seaborne transport. The rules also address topics not covered by other rules on carriage of goods including matters pertaining to the rights of controlling party, transfer of rights, jurisdiction and arbitration. On account of the extensive coverage of the rules that provides a transparent and detailed account of maritime trade, the implementation of the rules should boost the confidence of parties in trade and hence spur them to conduct more trade. This will undoubtedly have a positive spin-off effect on the shipping and port sector, and other ancillary services providers in the future.

As businesses and parties in trade focus more on supply chain management to gain competitive advantage in business, their demand for transportation and trade facilitating services has grown more complex in tandem. Their focus on door to door delivery, as opposed to just port to port transportation of goods, requires an expanded, more specialized and more sophisticated services. Shipping companies must configure their services and routeing to meet the needs and expectations of shippers. The hub and spokes system resulting from changing production, manufacturing and consumption patterns will influence the way shipping companies and port operators plan, operate and strategize their business.

Trends in shipbuilding and advent of shipping services and port operation technologies will also play a telling role in the development of the maritime sector in the years ahead. Main line operators (MLOs) will be making fewer port calls as the new generation of giant container vessels can only call at hub ports with adequate draft and handling capacity to serve them. This will further solidify their imprint on the hub and spokes seaborne trade and port systems. Should global trade and the economics of shipping dictate that the demand for giant container ships become fashionable again, megahub ports

> “*The ever changing patterns of production of raw materials and manufactured goods will continue to determine the course of world trade in the near future.*”



Task ahead: *The challenge to develop adequate and skilled human capital will have to be resolutely addressed in the years ahead.*

> *"The UNCITRAL Convention will have a positive spin-off effect on the shipping and port sector, and other ancillary services providers in the future."*

will thrive. This will spawn a complex web of feeder ports and feedering shipping services to support the MLOs that will alter the landscape of seaborne trade and the maritime industry in the future.

Changing attitudes towards competition will further curtail monopolistic, unfair dominance and cartel-like tendencies and behaviors of shipping companies. The recent complain lodged by EU WTO against South Korean shipbuilders for the latter's alleged unfair subsidy practice is a sign of things to come. Efforts by the European Commission to ban shipping conferences in other jurisdictions will continue to put the industry in a state of uncertainty, despite the effort not making much headway. Such effort to create a level playing field in the industry will have a significant impact on the way the players conduct themselves in the years ahead.

Society's increasing demand for businesses to be conducted in a socially and environmentally responsible manner will have an impact on the way the maritime industry operates. The focus on fair and equitable practices, driven by NGOs, the media and ever-changing composition of the stakeholders in the industry, will drive the industry to consider its corporate social responsibility instead of just focusing on maximizing shareholders' wealth and enhancing revenues. This will influence and shape the way players in the maritime sector plan and conduct their operations.

The challenge to develop adequate and skilled human capital to match the growing complexity and sophistication in seaborne trade transport configuration and the demand for service such as shipping and port operations will have to be resolutely addressed in the years ahead. For the maritime sector to effectively fulfill its role to support world trade, it has to nurture talent and expertise to match the growing volumes of seaborne trade. The need to provide the manpower to meet the increasingly complex challenges of shipping, port operations and other maritime related activities will continue to be one of the most critical issues in the industry in the years to come.

Although the threat of terror on maritime targets has somewhat dwindled in the years following the 9/11 incident, it would not be wise to completely dismiss the probability of terrorists attacking maritime assets, no matter how remote. Stakeholders in the industry must continue to be vigilant and stay guarded to anticipate, counter and react to attacks. Post 9/11 measures put in place such as the ISPS Code and Container

Security Initiative must be fastidiously adhered to and reinforce if necessary. The ‘low probability, high risk’ feature of attacks on targets along the maritime supply chain must be used as a reminder for industry players and enforcement agencies to put security of personnel and assets along the maritime supply chain on top of the agenda. The attacks on the French supertanker *MV Limburg* by terrorists provide a stark reminder that assets in the maritime industry presents a viable, attractive target for those with bad intention. It is therefore crucial that players in the industry stay alert at all times of the possibility of terrorist strike, amid preparing for the eventual rebound in the global economy and seaborne trade in the years ahead.

Being in an industry which is influenced by a plethora of factors, players in the maritime industry must constantly be on their toes and stay abreast with the latest trends, developments and issues affecting seaborne trade and transport. New rules, regulations and conventions will be introduced in response to changing face of the industry. The onus is on the industry practitioners to adjust their operations and align their mindset to the ever-changing facets and dynamics of the industry. These include areas such as safety, security, environmental protection, corporate governance, financing, technology, human capital, among many others.

Technology will continue to play a key role in driving the growth and development of the industry. Over the last decade, many breakthrough technologies have been seen in the maritime industry that has propelled its march forward. The advent of internet and telecommunication has enabled seaborne trade to be carried out more safely, securely, efficiently, productively and at lower costs. In the pursuit for economies of scale and in fulfilling the maritime sector’s role as the most important conduit to global trade, players in the sector are expected to invest and harness ICT even more intensively in the future. To this end, it is projected that more money and efforts will be invested in R&D to improve the performance in the shipping sector, port operations, shipbuilding, cargo handling, trade distribution and many others.

Financing is the lifeblood of any industry, and this is especially the case for the maritime industry which is highly capital intensive. Once the global trade and economy recover, demand for merchant shipping and the host of activities supporting it will pick up again. With this uptick comes the need for huge amount of competitive financing to support the industry’s rebound and further growth. With growing costs of raw materials such as steel and oil, and rising costs of equipment and other costs such as insurance, shipowners, port operators, shipbuilders and maritime ancillary service providers will require a wide range of financing options to finance their capital expenditure and business operations.

Global warming may also exert significant influence on the maritime sector. Although images of rising sea levels inundating seaports are still confined to Hollywood movies, it would be foolish not to consider the prospect of that happening. The opening of the Arctic Ice Route, blamed on melting polar caps due to rising temperatures, provides a chilling reminder of the fact that the effects of global warming are not something we should only worry about in a distant future. Shipping companies, port operators, shipyards and many other players in the maritime industry should seriously consider the impacts that this new menace may have on their businesses.

With the world being so dynamic and factors affecting seaborne trade and transport being so volatile, it is hard to say with a high degree of accuracy how things will pan out in the years ahead and whether the forecasts offered would come to fruition.

The only thing that can be guaranteed is this: change is the only constant, and there will be more changes in store in many areas that will exert their influence on the maritime industry. Industry players and practitioners who are slow to anticipate, align and adjust their systems, processes, work habits, strategies and mindsets to these changes will lose their competitive edge and even relevance. Amid the ever changing tides of the world in flux, they would best realise that they better start swimming or risk sinking like a stone, as Dylan warned. MG

> *“The hub and spokes system will influence the way shipping companies and port operators plan, operate and strategise their business.”*

The Rotterdam Rules
A Win-Win Proposition

Kate Lannan
(kate.lannan@uncitral.org)
B.A., LL.B., B.C.L., LL.M, is a Legal Officer with the UNCITRAL Secretariat in Vienna, Austria. She was the Secretary of Working Group III on Transport Law, which prepared the text of the new Convention prior to its adoption by the United Nations General Assembly in December 2008.

Ms Lannan has worked in the area of private international law since 1998, and is a member of the bars of Ontario, Canada, the State of New York and Washington DC. The views expressed in this article are her own, and do not necessarily reflect those of the United Nations.

WITH HER 7,517 kilometre long coastline, her 13 major ports and her annually growing importance in terms of global trade, no country in the world may be more cognizant of the importance of a harmonized legal regime for maritime transport than India. It is estimated that a whopping 90 per cent of India's trade by volume is moved by sea. Impressively, her merchant shipping fleet ranks as one of the largest amongst developing countries, and as one of the top 20 in the world. And, global financial crisis notwithstanding, India has set her eye on a goal of reaching 5 percent of world trade volume by 2020 – and is thought by many likely to achieve it.

With such impressive statistics and such great ambition, it is unlikely that Indian commercial interests are interested in continuing to pay the premium of higher costs and greater inefficiency associated with the legal and commercial uncertainty offered by the current international regime governing the carriage of goods by sea. It is precisely for those reasons that trading and maritime interests in India should take a good look at the Rotterdam Rules.

Known formally as the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, the Rotterdam Rules were adopted by the UN General Assembly in December of 2008, and opened for signature in September of this year. While the Rotterdam Rules have already made their debut in this magazine by way of an insightful article published in the October 2009 edition, events that have taken place since then beg for an update and a more thorough examination of why the Convention should be carefully considered by India and other important trading nations.

On 23 September 2009, the Rotterdam Rules were opened for signature in the bustling port city of Rotterdam, the Netherlands. Sixteen States in all signed the Convention on the first day that it was opened for signature – a record for the number of signatures obtained on a convention developed by the United Nations Commission on International Trade Law (UNCITRAL) on the day it opened for signature.

The identity of the 16 States that signed the Convention upon its opening for signature is worthy of examination. Not only did world trade heavyweights like the United States and France sign on to the Rules, they were joined in their approval of the new regime by leading maritime nations like Greece, Norway, Denmark and the Netherlands. Other noteworthy developed nations that gave the nod to the Convention on its opening day were Spain, Switzerland and Poland. Interestingly, a number of developing nations were also quick to support the Rotterdam Rules at this early juncture; Congo, Gabon, Ghana, Guinea, Nigeria, Senegal and Togo all signed the treaty on its opening day.

In all, the 16 States that signed the Convention at the Rotterdam Signing Ceremony represent over 25 per cent of current world trade volume according to the United Nations 2008 International Merchandise Trade Statistics Yearbook.

While this figure is quite impressive on its own, it is even more impressive when compared with the most recent UN convention in this area of the law, the Hamburg Rules, which has 34 Contracting States at the time of writing. Although the Hamburg Rules have over twice as many States Party as the Rotterdam Rules have signatories, the Hamburg Rules countries represent a mere 5 per cent of world trade volume.

Since its opening for signature, the Rotterdam Rules have continued to gain steam. Five more States signed the Convention within a month of it having opened for signature: Armenia, Cameroon, Madagascar, Niger and Mali. Moreover, a number of important maritime and trading nations are still in the process of internal consultation regarding whether they, too, will become party to the new Convention. Amongst these are the United Kingdom and Belgium, both of whom made official statements at the Signing Ceremony in Rotterdam informing participants of the status of their considerations, and affirming their support for the development of the Rotterdam Rules. In the words of the Belgian delegate, "International trade will of course be the first beneficiary. But worldwide harmonised rules are also an essential factor in the development of a sustainable mobility and transport, because worldwide harmonised rules will enable a better integration of sea transport in the multimodal transport, which is essential to reach that objective of sustainable mobility and transport."

While the 21 signatures currently affixed to the Convention are impressive, they are not, of course, conclusive of the broad acceptance of the Rotterdam Rules by the global trading community. And while several of the key signatories are already moving toward ratification, including the United States, the Convention will not enter into force until one year after 20 States have ratified the text. Still, the list of signing States certainly provide us with considerable insight into the acceptability of the legal rules in the Convention by an intriguingly varied group of nations.

This interesting mix of countries provides fodder for thought, given their diverse backgrounds and undoubtedly varied perspectives on what an appropriate international regime should look like. Yet this group of countries – including those thought to be 'carrier' nations and those most certainly seen as 'shipper' nations – have all stepped up to signal their support for the Rotterdam Rules at the earliest moment possible.

Why is it that these countries have overcome the differences in their historical maritime interests and managed to come together in support of the new legal regime?

Perhaps it is because they have realized that negotiation of a new maritime transport convention – or a "maritime-plus" one, in the case of the Rotterdam Rules – does not necessarily present a "zero sum" game, where the gain or loss of one stakeholder is necessarily offset by the loss or gain of other stakeholders. Historically, the international legal regimes governing the carriage of goods by sea have certainly been seen in that light – with the Hague and Hague-Visby Rules being considered too carrier-friendly, and the Hamburg Rules being considered too much in favour of shippers. There is certainly a temptation to continue this sort of rhetoric in examining the new regime under the Rotterdam Rules.

In fact, the temptation to set out the various advantages of the Rotterdam Rules for shippers and for carriers is almost irresistible.

Shippers, for example, could point to any one of a number of features in the text as improvements, while carriers might view them as disadvantages, including:

- The increased monetary limits on the carrier's liability for loss or damage to the goods;
- The deletion of the carriers' nautical fault exception providing exoneration for loss of or damage to the goods, and the circumscription of the fire exception;
- The extension of the due diligence obligation of the carrier for seaworthiness and the cargo-worthiness of the ship to become a continuing one;
- The inclusion of deck cargo into the regime so that a carrier is not automatically exonerated from loss or damage to cargo carried on deck;
- Clarification of the liability of maritime performing parties;
- The extension of the notice period for loss or damage to goods to 7 days;
- The removal of the possibility for the carrier to hide its identity in the transport document; or

> *"There is certainly a temptation to continue this sort of rhetoric in examining the new regime under the Rotterdam Rules – and a number of commentators have bought wholeheartedly into that approach."*

The challenge for all States, including important trading States like India, is to look beyond the 'zero sum' game, and see the enormous benefits that such a global regime can offer all stakeholders.

- The extension of the limitation period for actions to two years.

Carriers, in turn, could refer to the following examples as improvements to the regime, while shippers might decry them as placing too heavy a burden on them:

- Clear articulation of the obligations of the shipper;
- Clear rules for delivery;
- Clear articulation of the basis of liability of the carrier;
- An improved regime for deviation;
- Permitting the carrier, under certain circumstances, to deliver the goods without presentation of the negotiable transport document, while still protecting the interests of all parties involved;
- Dealing with the problem of how to deal with concealed damage in a multimodal carriage; or
- The creation of clear rules for undelivered goods.

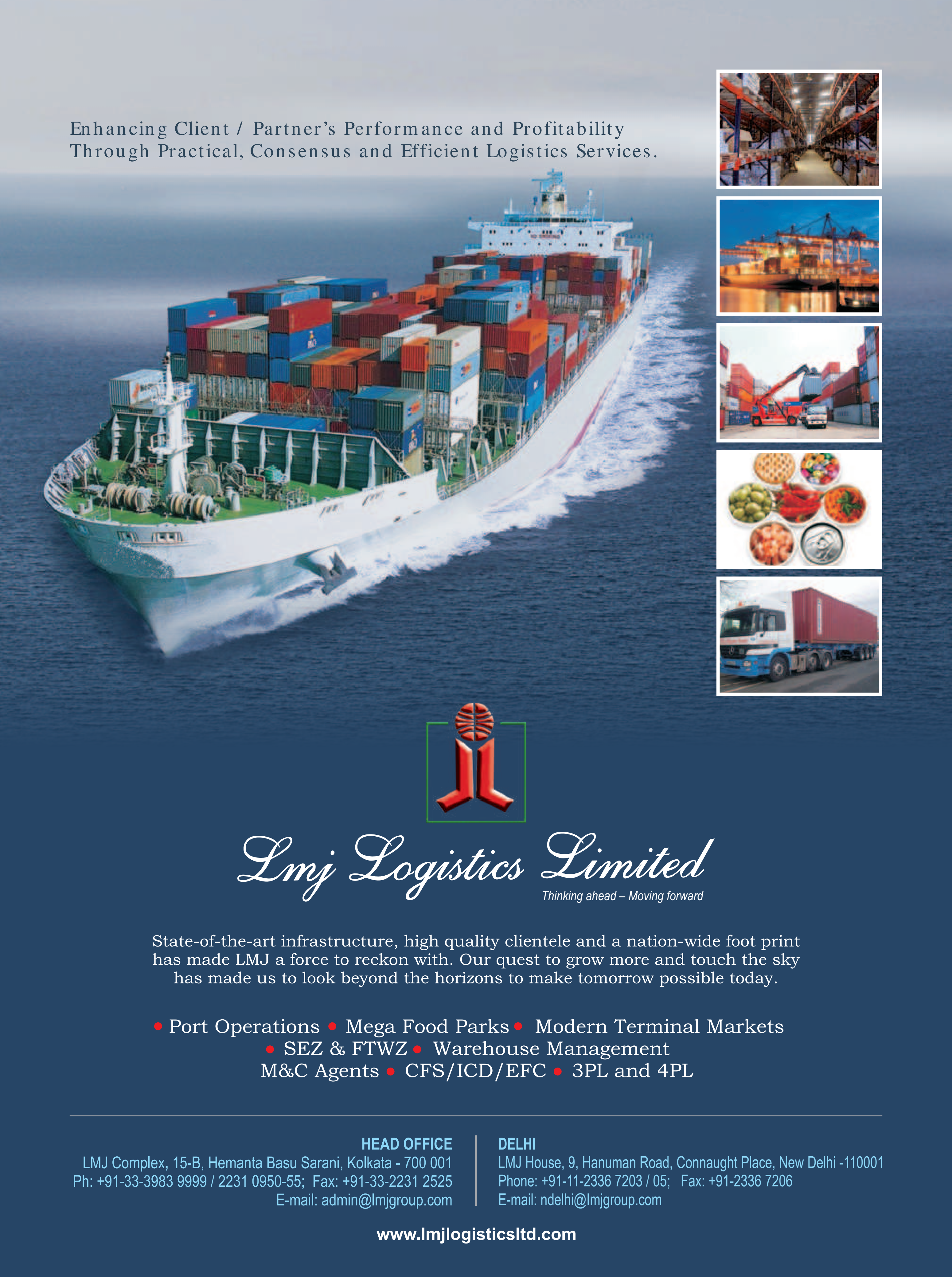
Yet, how did these 21 signatory nations representing both sides of that historical shipper-carrier tug-of-war manage to avoid falling into this familiar habit? The answer to that question lies in the rejection by those countries of the "zero sum" approach in their analysis of the rules, and their willingness to see them as a "win-win" possibility. By being open-minded enough to see the overarching theme of shipper-carrier balance that runs through the Rotterdam Rules, these States were able to keep their eye on the prize, and recognise that *all* stakeholders involved in international trade and maritime transport had much to gain from a harmonised and balanced system. This mix of shipper and carrier States have been able to get beyond their historical biases, and see, as the Belgian delegation said, that "worldwide harmonised rules are …an essential factor in the development of a sustainable mobility and transport."

And in rejecting the classic "us versus them" approach, these States have come to see the enormous advantages for all parties to the contract of carriage, and other stakeholders, in establishing legal and commercial certainty in respect of the following, and other, aspects of the Rotterdam Rules:

- The possibility of a clear, harmonised global regime for maritime transport;
- The establishment of electronic commerce for modern, efficient shipping practices;
- The ability to ship door-to-door under a single contract of carriage and single legal regime;
- Specific features taking into account modern containerized shipping;
- The inclusion of incoming and outgoing maritime carriage;
- The use of the well-known limited network liability system;
- Coverage of all transport documents in the liner trade, not just bills of lading;
- Limited freedom of contract, where appropriate, plus the retention of mandatory protection where needed;
- Comprehensive and more systematic provisions on carrier and shipper liability and a balanced allocation of risk between these parties;
- Right of control, to assist shippers and financing institutions, and to pave the way for electronic commerce;
- Clarification of numerous legal gaps that exist under the current conventions;
- Codification of existing industry practice to provide for legal certainty; and
- The general adoption of commercially practicable solutions.

There are, of course, many additional benefits included for shippers and for carriers in the Rotterdam Rules. The potential gains for all participants are great, but failure to seize this unique opportunity will mean a continuation of the cumbersome and costly status quo – or worse – for many years to come. MG

(Photo credit: Reprinted with the permission of Roy Borghouts Photography and Port of Rotterdam Authority)



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Dredging

Planning for the Revival

Constantijn Dolmans (dolmans@iadc-dredging.com) is the Secretary General of International Association of Dredging companies. He graduated from the University of Leiden in law and holds a master degree in business administration from the OU Business School.

Since 2003, Constantijn has been Secretary General of the IADC (www.iadc-dredging.com).

He is also a member of the Environmental Committee of the World Association for Waterborne Transport Infrastructure PIANC.

ARE YOU waiting for the economic recovery to start planning a port expansion project? Then you may be too late. Now is the time for action if ports want to deal properly with future pressures. According to the Organisation for Economic Co-operation and Development Composite Leading Indicators (OECD CLIs), published in early November 2009, the economy is starting to show signals of recovery.

Clearly these "green shoots" have to be carefully nurtured. But even before the current economic downturn, the navigational infrastructure in many regions was not meeting demands. Whether in India, China, Europe or the USA, the maritime and inland waterways infrastructure was lacking capacity. The three largest European ports – Antwerp, Hamburg and Rotterdam – suffered from significant congestion in recent years as did other ports that are located in densely developed urban areas. With the OECD's forecast of economic recovery, the pressure on these ports and their surroundings, and on navigational infrastructure in general, will certainly increase again. Many port authorities are aware of this and already planning extensions or restructuring, either as a part of their long-term master plans or as a part of newly revised plans.

International dredging and maritime construction contractors have continuously been involved in these port development and maintenance projects worldwide. Their experience is extensive. In 2008 alone, the investments by ports in dredging were over 5 billion euro. Increasingly, the lead contractor in port development projects is an international dredging contractor. So, before postponing plans for port expansion because of the economic downturn, it might be wise to learn from the global experience of international dredging contractors that are well aware of the social, financial and ecological pressures that ports have to deal with. Applying these lessons will support further economic recovery in general and future port development specifically.

Ports and their surroundings

The locations in which ports operate are often valuable and very productive. These areas provide opportunities for agriculture, fisheries and trade, as well as being strategic positions for port cities and industries to develop. Large ports and large cities go hand in hand. Ports operate in urbanised areas with intense social pressure. Often they also operate within vulnerable ecosystems. But ports also have to deal within their budgets and financial conditions that have deteriorated over the last two years.

Financial pressures and how to deal with them

Looking at traditional economics, ports tend to be trapped in the economic cycle when making their investments. The cobweb model, based on production lags and adaptive expectations, predicts that when prices are high due to high demand, more investments are made. When the market becomes saturated, prices decline but by then it is too late. When demand is low, nobody has the courage or the money to invest. This behaviour repeats itself cyclically. The resulting supply-demand graph resembles a cobweb. Since port development projects often have long lead times, ports are very vulnerable to this economic cycle. Some ports, however, dare to invest in reverse to this cycle.

Singapore did anti-cyclical investments in 2001 as they are doing now. Rotterdam is currently investing heavily in its Maasvlakte 2 extension. Both ports have prepared these investments thoroughly and will be ready for the future. For them these investments in dredging activities and maritime infrastructure mean being prepared for the economic revival.

Recognising budget constraints

As stated above, many ports nowadays face

Since port development projects often have long lead times, ports are vulnerable to economic cycles. The Maasvlakte 2 expansion started in 2009 in preparing for future demands.

budgetary constraints. They might tend to procure the lowest bid when they invest in their port development – a strategy that often proves to be 'penny-wise and pound foolish'. A port should choose the contractor who offers the best value for money and who is willing to operate as a partner. The most economical service means the contractor who has the appropriate equipment and can deal with the social and environmental constraints of the port.

Procurement

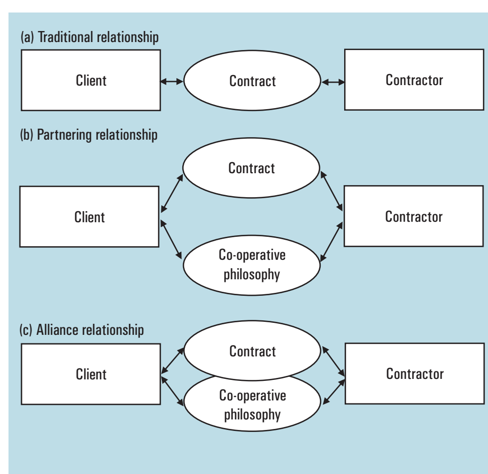
For the success of a project, price should not be the only threshold a contractor has to meet. Good safety and health management, good capabilities to handle environmental constraints, the general capacity to undertake projects of a given type and size on time are of equal or more importance. The procurement process should explicitly include these quality thresholds.

For more complex projects, the traditional relationship between the port and the contractor is insufficient. In the traditional, 'competitive' relationship, responsibilities are allocated and the parties to the project act out of their own, often conflicting, interests. The client wants a low-cost, inexpensive project, the contractor wants to earn as much as possible.

There are many examples where this leads to less than optimal interaction resulting in adversarial relationships amongst players in the port development project and lose-lose situations. For the port this may result in hidden costs, for the contractor in penalties for situations that were unavoidable. In both cases, neither the client nor the contractors are really satisfied.

Contract forms

The opposite of this is partnering. Partnering is a form of co-operation, bound in a partnership agreement between the port and the contractor where trust is the basis of the relationship rather than distrust. Going even a step further is the so-called 'alliance' contract. Alliance contracts involve a collaborative process, aimed at promoting openness, trust and sharing risks and responsibilities. For a small-scale, straightforward, short-term job, a traditional contract may be just fine. But recent cases such as Maasvlakte 2 in the Netherlands and the port of Melbourne, Australia have proven that for a large-scale, complex project which requires long-term planning and execution a partnering relationship or an alliance relationship offers the opportunity to work to everyone's satisfaction in a cost-efficient manner.



Traditional, Partnering and Alliance relationships (Terra et Aqua 113, 2008)

Social pressures and how to deal with them

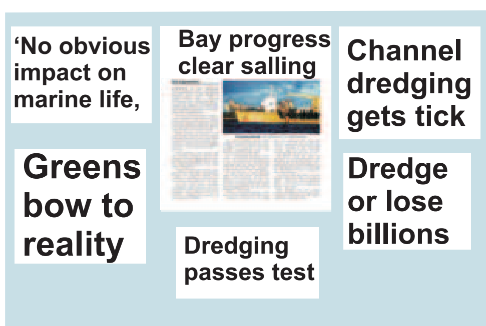
Ports work in situations with many stakeholders: residents, industries, fisheries, farmers, environmentalists and the community in general. This means ports have to deal with extreme political pressure. Sustainable port development, therefore, requires a culture of dialogue, consensus building, partnerships and co-operation. Dialogue goes beyond tossing out your key messages to the public. Dialogue is about listening to each other and learning from each other. Port authorities need to

> *"The most economical service means the contractor who has the appropriate equipment and can deal with the social and environmental constraints of the port."*

recognise issues of community concern in the earliest stages possible. Stakeholders should be able to contribute to the planning process to limit public concern, controversies and reactions arising afterwards. Crucial to the planning of complex port projects is the establishment of consultative groups and building partnerships with other stakeholders. In recent years, the importance of stakeholder participation has been recognised more and more. If the port does not spend time and money on stakeholder participation upfront and does not take the environmental concerns of the broader public seriously, environmentalists groups and residents will see you in court. This results in project delays and even suspension of projects.

> *“The ‘Working with Nature’ approach is more sensible because it helps to reduce overall costs, it reduces project lead times and it reduces stakeholder protests and delays.”*

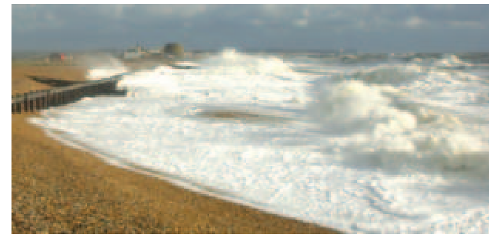
Ecological pressures and how to deal with them



Encouraging headlines indicate the success of the extensive dialogue in the Port of Melbourne Channel Deepening project.

Ports often operate in valuable and vulnerable ecosystems. These ecosystems demand special attention, attention that they often do not get in a timely fashion.

The traditional way of engineering is the sequential process of: 1) recognising a need, 2) engineering the design, 3) taking mitigation and compensation measures for adverse effects, and 4) doing the job. Currently, most port developments use this defensive Environmental Impact Assessment approach, mitigating and compensating adverse effects. If, however, we take a closer look at port development projects worldwide that are being delayed or have been stopped, the usual reason is because nature and the environment are being considered far too late. The results can be disastrous: The port and contractors land up with an uphill struggle to mitigate and



An integrated approach for port planning and development recognises the dynamics of nature and takes the natural environment as a starting point.

compensate adverse effects. An integrated approach for port planning and development recognises the dynamics of nature. It takes the natural environment as a starting point for project development and assessment. It incorporates the knowledge of the local ecosystem in the project design at the earliest stages of the project. In this ‘Working with Nature’ approach, the knowledge of the ecosystem is used to identify all functions of a system. The ‘Working with Nature’ approach is more sensible because it helps to reduce overall costs, it reduces project lead times and it reduces stakeholder protests and delays. It is aimed at the synergy and cooperation that will allow natural ecosystems and human intervention to reinforce each other. Ports should take the natural environment as a starting point for project development and assessment. This is not a ‘radical environmentalist view’ but a sensible approach reducing costs and lead times.

Dredging and maritime engineering are an essential part of port development, but dredging is admittedly a tool which changes the environment. It is a tool aimed to alter environmental circumstances and no one is more aware of that than dredging contractors themselves.

“Working with Nature’ is an approach the international dredging contractors have found time and time again to work optimally for all parties and stakeholders.

Finally...

Key to a successful port development project is getting dredging and maritime construction contractors involved early, before the pen has touched the paper in the planning process. Within the realm of the international dredging contractors lies a wealth of expertise and experience on offer to each and every port authority. That’s an offer that’s too good to be refused. MG

Deirdre Littlefield (Deirdre.littlefield@cvstarr.com) is the President of the International Union of Marine Insurance, the 134-year-old global maritime trade association, a member of the Management Board of the National Cargo Bureau and a member of the American Bureau of Shipping. She is currently serving as senior vice president, Director of Business Development, Operations & Field Office Management for Starr Marine Agency, Inc. Ms. Littlefield was named as one of the insurance industry's 100 Top Women by Business Insurance Magazine in 2000 and as a 'Woman to Watch' by Business Insurance in 2006.

Marine Insurance
Income Takes a Hit

IT IS extremely difficult, perhaps impossible, for either the shipping industry or the marine insurance industry to make predictions for the next decade. Frankly, it is even difficult to look ahead over the next year. What one can say with some degree of optimism is that the worldwide maritime industry, ravaged by the economic and financial crisis over the last 18 months or so, has perhaps passed through its darkest hour. There is more grief to come, to be sure, but at last there are signs of recovery in some trades with charter and freight rates moving up, albeit very slowly.

World trade has fallen off dramatically, meaning too many ships chasing fewer and fewer cargoes accompanied by a huge drop in commodity values. Repairing the consequent damage is going to take a long time.

Meanwhile, the industry is thinning out as credit lines are pulled, forcing many operators into bankruptcy or Chapter 11 situations. And too many ships and crews are being abandoned by financially-strapped owners.

To my mind there are two obstacles to any sustained recovery in the short or medium term. China was of course the main driver of the boom in trade and shipping that evaporated so suddenly in 2008. Now, however, analysts are predicting gloomy times ahead for the Asian powerhouse as China faces a major slowdown in the growth of its economy. This could indeed be bad news for shipowners.

The other obstacle is the massive amount of new tonnage still on shipyard order books. In spite of panic attempts by many shipowners to cancel or delay newbuilds, or come to some other kind of deal with shipbuilders, the steady stream of new vessels will be a drag on recovery prospects. This surplus tonnage will far outstrip the number of old ships being scrapped and those being laid-up – so far, at least.

By mid-October, the number of containerships in lay-up had risen to 568, or 10.4 per cent of the total global fleet capacity of 1.4m TEUs. Ominously, it was reported that the average charter duration for boxships had shortened to 4.5 months. One-year charters were almost impossible to achieve, said brokers.

For marine insurers, the devastating plunge in ship and commodity values is a big problem, meaning much reduced premium income both for hull and cargo underwriters. It seems almost certain that the majority of operators will show asset impairment this year, with balance-sheet valuations of vessels well down.

All these economic pressures have a direct effect on marine insurance trading and results. Cargo underwriters base their premium rates on actual values shipped or annual turnover. Thus, the fall in world trade volumes and values negatively impacts premium income. A decline in premium volumes therefore brings a reduction in bottom-line underwriting profit.

IUMI statistics released in September indicate that the global cargo loss ratio has been increasing for the last few years. If claims levels remain the same or rise in 2009/2010, the reduction in premium income will push cargo loss ratios even higher.

However, this is a very simplistic view and does not take into account the potential positive impact of tighter underwriting terms and conditions, loss prevention/reduction techniques and savings, or downward pressure on insurers' internal expenses.

Then there is the ongoing impact of piracy which, while centred on Somalia, is again spreading to other parts of the world, notably parts of Asia, West Africa and South America. Piracy restricts free trade and has direct implications for vessel operators and their crews, cargo owners and shippers and insurers.

Piracy received a great deal of attention at the 2009 IUMI annual conference in Bruges in September, and the consensus of opinion was that the menace of piracy will be around for a long time yet. IUMI has joined other maritime associations and the IMO to call for an international solution to this issue.

Worryingly, no one can be sure that at least some of the money taken by Somali pirates is not funding terrorist activity or weaponry. At a recent maritime security conference in Athens, Dr Peter Lehr, a respected lecturer in terrorism and maritime security studies, ruled out a return to the "brutal" strategies for maritime powers to deal with pirates on land, going against what many advocate. We now lived in a world of 24/7 media coverage and you could not avoid the collateral casualties, he argued. He was also negative about having armed guards or crew on board, which might spark an arms race. There was no quick fix.

Turning to the threat of maritime terrorism, Dr Lehr said there were four main nightmares: the placing of a weapon of mass destruction on board a boxship; using a LNG carrier as a 'floating bomb'; using a big vessel as a momentum weapon to block choke points (such as the Suez Canal); and hijacking of a cruiseship. However, the actual history of maritime terrorism so far was one of comparatively low impact strikes, and the resources and capabilities of terrorists were limited, he said.

So far, readers will have noticed a distinctly negative tone to these comments; but I believe they do reflect the extremely difficult situation ensnaring the shipping industry – and it is not just owners who are suffering, the pain spreads to all the industry's supporting infrastructure, such as ports and terminals, and service providers, such as shipbrokers, crewing agencies etc.

Having said that, there are still some positive factors for marine insurers. For example, the last 12 months have proved surprisingly stable with premium rates changing very little.

There are other favourable indicators. With the slowdown in shipbuilding, there is more repair capacity and keener prices; spare parts are easier to obtain, thus hopefully eliminating the dangerous practice of offers of imitation or faulty secondhand units; and the crewing crisis should ease as owners and managers will have a bigger pool of quality mariners to choose from.

Operators are now realising that adequate crew training is the key to better ship efficiency and fewer casualties. Human error remains the principal cause of most casualties, as the records of hull insurers and P&I clubs testify, and this must be the number one priority in the selection and proper and efficient training of crews. Any new vessel, from the biggest to the smallest, is a highly sophisticated piece of machinery, largely controlled by computers. This places an increasing burden on officers and crews.

It is interesting to note that airline safety has been very much in the news lately, and aviation authorities have said that trimming budgets to survive the recession could have an adverse effect on pilot training and aircraft maintenance. Experts argue that pilots are becoming over-reliant on automatic systems because they spend too long on simulators instead of flying manually. They add that training courses have failed to keep up with increasingly sophisticated technology and "significant increases" in aircraft complexity.

This is pretty much the same situation with ships. Also, the issue of fatigue related to casualties has cropped up in the airline industry, and pilots have been staging coordinated demonstrations across Europe to highlight the issue of excessive working hours and distributing leaflets to travellers at major airports.

In truth, the shipping and aviation industries have much in common and much to learn from each other. MG

> *"For marine insurers, the devastating plunge in ship and commodity values is a big problem, meaning much reduced premium income both for hull and cargo underwriters."*

Loss Prevention

Proactive Strategy or Reactive Response?

Erik Kerten, (erikk@klpmaman.com) general manager of KLP Maman, is a former member of the Israeli ISA (parallel to the US Secret Service). During his service, Kerten held a wide variety of operational and management positions, including command of the Prime Minister's Protection team and units responsible for protecting Israeli and foreign dignitaries.

Mr. Kerten has a degree in Business Administration and considerable experience in managing security and civil projects. He is a Board of Directors member for several leading Israeli companies.

BUSINESS LOSS is a common phenomenon in the market and it significantly damages many companies' profitability. Against the backdrop of the current global recession where companies are experiencing financial hardships and trying to minimize expenses in any way possible, the question arises of whether companies are truly doing everything in their power to improve their profitability.

Loss prevention is actually an organisational perspective aimed at reducing or preventing potential losses. The approach suits any company or organisation that conducts some sort of operational or logistic business. The inventory, warehouses, movement of merchandise inside and outside the organisation, the interfaces between the various departments and the other processes and activities, are generally examined in purely operational and logistic terms of production efficiency and availability of logistic support and not through potential loss parameters. This may create a situation where the organisation loses a lot of money due to abuse or unintentional operational and logistical errors.

The failure can be a breached process that can be exploited for theft or it can be a process that contains the potential for errors. The leak can appear in interfaces inside the organisation, in logistic or operational processes, and more.

Loss prevention is part of the organisational strategy and not a specific reaction to an error or malfunction. The goal is to find the weaknesses and faults in an organisation and address them in order to eventually attain prevention on a daily level.

In most organisations, the company's problems are forecast to come from external sources and therefore, almost every company that takes operational efficiency seriously has a security officer that is responsible for protecting the company from external threats. However, according to a study conducted by the University of Florida, over 60 per cent of an organisation's losses are caused by internal factors that manifest according to the following:

System synchronisation – Bypasses and partial processes to the ERP systems that abuse the system, cause inaccuracies, and give options to alter operational procedures

Loss prevention actions are meant to generate and implement work processes that completely integrate the inspection and security components with operations.

Minimising and/or preventing loss is a critical element in managing expenses and improving profitability. Loss minimisation is a long road strewn with surprises, since most organisations are not at all aware of the financial value of their annual losses (aside from inventory losses). Loss prevention examines all the processes within an organisation in order to find failures and weaknesses through which money can leak through the organisation.

that help in cases of inefficiency, information leakage and abuse of the organisation's resources.

Destructions – Often, where a product is eliminated from the inventory and cannot be counted, a bypass is created where these products are reused but not through the company, causing the company to suffer twofold (eliminating useable inventory, reselling the product by someone else and thereby harming the company's sales).

Inventory management – "Closed" systems such as ERP systems do not enable changes to be made once the data has

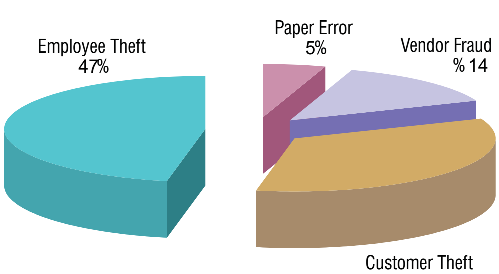

Source: DHL

The solution: *The main work perspective in the loss prevention process is preventative.*

already been entered. In many cases, data is incorrectly entered to the various systems, mainly due to typing errors.

Data verification – Two main problems in large organisations are data verification and control & inspection at the senior management level. In numerous cases, weaknesses in the processes cause a disparity between the actual data and the data on which operational decisions are made in the company. The majority of reports to senior management are made from middle management and from numerical reports, and decisions in the company are made based on the data that is received. These reports are often erroneous and there is a large disparity between the reports and reality.

Sources of Inventory Shrinkage



The main work perspective in the loss prevention process is preventative. Prevention begins when a weakness is identified in the organisation's operational / logistic activity. At the beginning of the process, we refer to three main types of loss: intentional, unintentional and hidden.

Unintentional loss refers to damage that is made innocently and unintentionally, such as an error in entering data.

Intentional loss refers to maliciously causing damage for various reasons such as revenge for dismissal, industrial espionage, etc.

Hidden loss is not considered loss but rather as an operational expense in an

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organisation, such as prohibited use of organisational resources, which the pertinent entities are neither aware of nor have approved of.

Over 97 per cent of shrinkage is undetected by retailers at the time of the crime or subsequently. Over 31 billion dollars is lost yearly in the US alone to inventory shrinkage. This does not include 'silent losses'.

There are several options for working together with customers in loss prevention. Each way yields different outcomes and they can be combined in the work process:

Surveys – A survey that examines an organisation's status quo, main problems that cause intentional / unintentional / hidden losses in an organisation from a human resources perspective, the knowledge in an organisation, and the technologies implemented at the organisation. At the end of the survey, the organisation decides how it wishes to proceed (continue / discontinue business, independently fix faults).

The purpose of the survey is to increase the organisation's awareness and understand the sources of the faults that need to be addressed. As part of identifying the problems, the organisation promotes solutions, which lead directly to savings.

Work plan – An organisation that understands the conclusions of the survey and chooses to continue collaboration, undertakes a project where the survey is taken as a basis and every problem and flaw is analyzed and practical solutions are designed. Loss measures are specified during the project so the organisation obtains a status quo and move forward to measure losses.

Such a project provides the organisation with operational tools for solving problems, which directly lead to optimization, savings, and problem solving. The purpose of the work plan is not only to fix faults, but to initiate a process where the main motif is prevention as part of the organisation's routine, and not just investigation (which is based on one malfunction or another that is fixed, until the next one appears…)

Application – An organisation that continues to combine application is one that understands that loss prevention is part of its routine business. Thus, we will divide the application step in two – correcting faults and setting up a loss prevention entity / team in the organisation.

Control – Assisting the organisation's loss prevention team. The main profit component in this stage is a percentage of the savings.

Integrating the security layout in loss prevention – Utilising all the systems and personnel that work with security, for operations. Using security cameras to examine irregular processes that include theft and break in, and also ongoing checks of routine work methods to prevent malfunctions on a regular daily basis.

Using technology – Implementing specific loss prevention parameters in the organisation's current / future systems, such as WMS, SAP, and ERP.

Characterising and highlighting the irregular factor – Making the irregular element the only information received in reports and thus turning it into red flag that alerts every time a malfunction occurs. This makes focusing and efficiency in real time possible, while giving a solution, for example: an employee that does not arrive on time or a shipment that does not arrive at its destination.

In summary, loss prevention is gaining momentum in numerous organisations worldwide, and it has immense potential to save organisations a great deal of money and increase their profitability. However, there are still several factors that make it difficult for organisations to adopt this model, stemming from two main reasons: feeling intimidated and undermining the authority of the operations managers, the logistics managers and the security officers in an organisation, and the fear that middle and upper management have of their conduct in the company being criticised.

Loss prevention success results in savings, which significantly increases the company's profits. Every manager, regardless of rank must ask himself at the end of each workday: How much money was lost today? Am I working to protect the company's profitability?

Planned and controlled adoption of loss prevention measures may contribute to significantly reducing damages and will be financially worthwhile to the organisation.

“*Every manager, regardless of rank must ask himself at the end of each workday: How much money was lost today? Am I working to protect the company's profitability?*”

Liquid Wastes

Another Nice Mess

IN THE 1933 comedic movie Sons of the Desert, Oliver Hardy turned to partner Stan Laurel, saying: “Well, here’s another nice mess you’ve gotten me into.” Through a series of missteps and short-sighted actions, the maritime community now has gotten masters and chief engineers into another nice mess relating to oily water separators and oil record books.

Waste liquids naturally accumulate in the bilges of ships. Improved maintenance and closer attention to detail can reduce (but not eliminate) such accumulation. Part of those waste liquids consists of oil. To prevent the waste liquids from overwhelming the cargo spaces and the engine room, traditionally the material was periodically discharged over the side and into the ocean. In an effort to reduce pollution of the sea by oil from ships, technology was developed to separate most of the oil from the ship’s waste liquids.

The oily water separator (OWS) was first mandated for installation on ships by the International Maritime Organization (IMO) in 1974. An OWS separates oil from the rest of the liquids by means of gravity, centrifugal force, osmosis, or other process or combination of processes. The OWS was originally designed to reduce the level of oil in discharge water to 100 parts per million (ppm). Ships could discharge waste water that contained up to that level of oil so long as the ship was underway, at least a certain distance offshore, and not in a particularly sensitive area.

When the requirement for the OWS was developed, the IMO also established a requirement that the ship maintain an oil record book (ORB). The ORB is intended to show how much oil is accumulated and how it is disposed. There are three major methods for a ship to legally dispose of waste oil: (1) burning on board, (2) transfer to an appropriate facility ashore, and (3) discharge into the ocean through a properly operating OWS. The oil record book contains detailed entries of oil accumulated and stored, as well as the time, place, and method of any and all disposals. Totals are supposed to match, but this is difficult as measurements, particularly of liquids in storage tanks on a ship at sea, are rough estimates at best.

There are other, more basic problems, though. For many years, governments and ship operators only paid lip service to OWS operation and ORB entries. Waste oil in excess of the authorised limit was routinely discharged at sea and few seemed to care. Chief engineers were under pressure to keep operating costs down. One method utilised was to ignore maintenance of the OWS. When OWS wasn’t working properly or when the filter needed replacing, the system would be circumvented. This could be done either through use of a by-pass hose to divert the discharge around the sensor unit or by adding non-oily flush water to artificially reduce the level of oil passing the sensor unit to below the authorised limit. In addition, false entries could be made in the ORB to show that more waste oil was burned on board than was actually the case. As long as everyone played by the same rules though, the system (while flawed) was stable.

In 1992, though, the discharge standard was strengthened to 15 ppm. Problems surfaced immediately. The OWS equipment was not operating properly. Filters regularly clogged and discharges ceased frequently. Meanwhile, waste water levels in the bilges were rising. It turned out that many OWS manufacturers had merely fine-tuned their old 100 ppm devices to reach the new 15 ppm requirement. This was achievable on a test platform in the factory, but frequently failed on a ship at sea. Chief engineers were having increasing difficulty in managing this problem while keeping the ships operating.

Dennis Bryant (dennis.l.bryant@gmail.com) is a maritime regulatory consultant who retired from the US Coast Guard with the rank of Captain after 27 years of active duty. He had various tours as a law specialist, including an assignment as the Coast Guard’s Law of the Sea officer. He also served a tour in the Office of International Affairs and finished his career supervising the staff charged with implementing the Oil Pollution Act of 1990 (OPA 90).

Chief engineers are routinely faced with a Hobson's choice.

In unusual cases, shipping firms have been banned from operations in US waters for periods of three years or more and masters and chief engineers have been prohibited from serving on ships in US waters for similar periods.

Things changed drastically on February 1, 1993, when a routine US Coast Guard air patrol observed a long sheen of oil streaming astern of a cruise ship on the high seas off Florida. Review of the ship's ORB when the ship arrived in port revealed that no entry had been made relative to this discharge. When the flag state declined to take action, the US government charged with cruise ship operator with making a false statement to a federal official. The operator litigated this and a related case, arguing, among other things, that there was no violation of federal law since both the discharge and the ORB entry were made while the ship was on the high seas. The court held, though, that the false statement occurred when the ORB was presented for Coast Guard examination while the ship was in a US port. After losing the procedural motions, the cruise ship operator settled this criminal charge by payment of $9 million and, in the related case, by payment of $18 million. Few other ship owners or operators have litigated an ORB charge since those highly expensive events. The United States now has the most vigorous OWS/ORB enforcement policy in the world.

Because the ORB bears the initials of the person making each entry and the signature of the master, the document serves the purpose of a signed confession, for which there is almost no defense. The number of prosecutions in the United States for fraudulent entries in ORBs has risen exponentially and fines have skyrocketed. Recently, US prosecutors have begun charging individuals (generally chief engineers) and ship owners/operators with violation of the Act to Prevent Pollution from Ships (APPS), either in conjunction with false statement charges or in lieu thereof. Following conviction, shipping companies are also being required to implement court-supervised compliance programs. In unusual cases, shipping firms have been banned from operations in US waters for periods of three years or more and masters and chief engineers have been prohibited from serving on ships in US waters for similar periods.

Under US law, a false statement consists of (1) making a statement orally or in writing; (2) when the statement is false or misleading; (3) the false or misleading information is material; (4) the statement or concealment was made knowingly; and (5) the statement was made to a federal official engaged in performance of his or her duty. Here, the statement was made in the ORB, which the ship is required to maintain and is required to present to the Coast Guard upon request when the ship is in US waters. If the federal government can prove that the chief engineer or another senior person in the ship knew that one or more entries in the ORB (which the person in charge of the operation is required to initial) is false and that the false entry was made knowingly, then the company can be held criminally responsible.

The US Coast Guard and Department of Justice interpret APPS as requiring the owner/operator, master, and chief engineer to “properly maintain” the ORB whenever the ship is in US waters. This has the effect of eliminating the requirement for the government to prove at trial that the falsified ORB was presented to a federal official. It also converts a one-time offense (the presentment) into a continuing offense (failure to maintain). Finally, an APPS conviction allows the federal government to pay a reward to any whistleblower.

To minimise the likelihood that the chief engineer or another engineering officer on the ship improperly disposes of the waste oil, the company should take positive steps to ensure that the OWS is operating properly and is well maintained. This will often require replacement of the OWS, particularly if the unit is more than about seven years old.

In 2003, the IMO approved the standards for a new generation of OWS that operate quite well (albeit not perfectly) at the modern purity level (15 ppm) and can deal with most of the new exotic chemicals that find their way into bilges. Through an apparent bureaucratic oversight, the IMO neglected to include in its promulgation of the new standard any provision for the phase-out of older OWS, with the exception that all new installations on or after 1 January 2005 had to be of the new generation of device. Thus, a ship with an old, inadequate OWS could keep it on board for the remainder of a ship’s life (which could be 30 years or more). Through neglect, or in an attempt to save a small sum of money, almost all owners have retained the older OWS. Thus, most masters and chief engineers are still in a nice mess.

Chief engineers are routinely faced with a Hobson’s choice. When the old OWS breaks down (as frequently occurs), the chief engineer can either require the ship to cease operation until the OWS is repaired (with the result that the chief engineer will be immediately discharged by the owner) or the chief engineer can have the rising level of bilge waste pumped directly overboard (generally at night) and then make an entry in the ORB showing proper disposal of the bilge waste. If the fraudulent ORB entry is discovered during a port state control inspection or other boarding, the chief engineer and the ship owner/operator are both prosecuted. The chief engineer generally goes to jail and the owner/operator pays a multi-million dollar fine and institutes an onerous environmental compliance program.

There are steps, though, that the ship owner/operator can voluntarily take to reduce the risk of violation of US law and the ensuing draconian penalties imposed on them and on masters and chief engineers. The new generation of OWS should be installed on all ships in lieu of the older, inadequate devices.

The chief engineer (and the master) should be clearly informed (preferably in writing) that his or her primary task in this regard is to properly handle and dispose of waste oil and that the general admonition to minimize expenses does not apply to this particular task. Also, personnel should be clearly advised of the requirement that log and record entries are to be made contemporaneously with the event and are to be accurate.

A preferred method of accomplishing both tasks is for the company to institute a maritime compliance program. Federal law provides that, if a company has a qualifying compliance program in place and a violation occurs regardless, the company will be entitled to a major reduction in sentence. One major cruise ship company benefited from this provision when it was proven that some of its personnel had engaged in improper discharge of waste oil and falsification of the ORB.

The Department of Justice, the Environmental Protection Agency, and the Coast Guard have written policies providing that, in appropriate cases, they will forego criminal prosecution for companies with qualifying compliance programs.

The bottom line is that, for a ship owner or operator to avoid handing the federal government a signed confession in the form of an oil record book with false entries, he must impress upon engineering officers that they are to properly maintain and operate the OWS and to make accurate and contemporaneous entries in the ORB. The engineering officers must be given every incentive to do the right thing and no incentive to do the wrong thing. MG

> *“There are steps that the ship operators can voluntarily take to reduce the risk of violation of US law and the ensuing draconian penalties imposed. The new generation of OWS should be installed on all ships in lieu of the older, inadequate devices.”*

Dirty Tankers
To be Demand-Driven

Cowan Thant Zin (cowan.thantzin@bunkerworld.com) is an editor with the Petromedia group. He writes for a wide range of publications including Bunkerworld, Ocean Intelligence, Tankerworld, Portworld and Sustainable Shipping.

FOUR FACTORS will be directly responsible for the state of the dirty tanker markets in the coming five years – global petroleum demand, crude export volumes, the International Maritime Organisation's (IMO) mandate to have single-hulled tankers phased out from the global fleet, and how much of the current orderbook fulfils its deliveries.

Dirty tanker vessel earnings should by then be many shades higher than current levels. VLCC average spot earnings last year stayed firmly above the $100,000 mark for a good three months from April till the beginning of August. Year-highs were constantly achieved during that period, with the MEG-Korea route fetching close to $200,000 per day per vessel for several days. That route in fact was trading between an astounding $250,000 and $300,000 per day per vessel in December 2007. Gross proceeds from fixtures earning those rate levels for an entire year alone would approximate an incredible $100 million – two years of earnings at those levels would cover the average cost of a VLCC newbuild.

In significant contrast, to put it mildly, VLCC spot earnings for all the months this year so far from February stayed firmly entrenched below the $50,000 per day per vessel mark, with many VLCC owners and operators not breaking even and earning below daily operating costs. TCE earnings even slipped below $10,000 per day per vessel for many weeks, flirting with the possibility of running daily losses on negative earnings fixture rates on several occasions.

Suezmax spot earnings stayed above $50,000 per day for pretty much the whole of last year, with cross-Mediterranean fixtures taking in more than $225,000 per day for the year's high last July. This year however, has mostly seen suezmaxes being hired between $50,000 per day and rock-bottom.

Ask any dirty tanker broker what thought comes into mind the moment OPEC is mentioned, and it is quite a good chance that the oil-cartel's decisions to cut their crude export volumes by 4.2 million barrels per day (bpd) since September last year would be most popular. It would be a grand understatement to say that the dirty tanker markets rely heavily on how much oil-producers are pumping out at any given time. The OPEC member nations produce about 40per cent of the world's crude oil and its oil exports represent some 55per cent of crude oil traded internationally. Although the markets and the OPEC producers themselves are in agreement that the 4.2 million bpd cut in exports has never been achieved, estimates done over the past year have pegged compliance between 65per cent to as high as 85per cent. Given that a fully-loaded VLCC can carry up to 2 million barrels while a fully-laden suezmax can hold one million barrels, OPEC's current export volumes are rendering jobless at least one and a half VLCCs or close to three suezmaxes from the current global fleet every day. To put things in better perspective, a month alone of 65 per cent compliance – the most commonly reported compliance rate ranges between 70 per cent and 75 per cent - removes cargo requirements for 45 VLCCs and 82 suezmaxes.

The driving force behind OPEC's production reduction had much to do with ensuring a good floor for wildy fluctuating oil prices. Global oil consumption has however been sliding drastically since 2008's economic meltdown. According to the International Energy Agency (IEA), global oil demand this year is averaging 84.8 million bpd, a 1.5 million bpd fall in cargo requirements from 2008 levels. So even without any reduction in crude production on the whole, much lesser intake from refineries - which have been running only at 80per cent of maximum capacity as runs are cut on significantly weakened refining margins - has resulted in more than enough tonnage available in the markets needed to move dirty petroleum products.

Global consumption of petroleum products in five years must be greater than current levels by not just the amount of demand lost in the fires of the recession, but also display sufficiently high enough improvements to answer the employment needs of the order book at hand. Just for VLCCs alone, the current order book already accounts for a dramatic 35 per cent of the global fleet of an estimated 525 vessels. Market players have estimated that about 60 deliveries will take place throughout this year, including close to 50 that have already been constructed. The number of single hulls however, that make up the global fleet of VLCCs is at present around 90 vessels, or 17 per cent. For the global suezmax fleet, 7 per cent are single hulls, while about 9 per cent of the global aframax fleet consists of single hulls.

Which is why the IMO's directive to do away with single-hulled tankers altogether over the next few years, although mainly intended to make liquid bulk maritime transportation less of a threat to the environment, will exert a major positive influence on dirty tankers freight rates by tightening up tanker supply. There are, of course, many Asian and Middle East countries which are expected to allow single hulls to continue trading beyond the 2010 phase-out. In almost all these instances however, most of these countries have cited needing more time to ensure efficient fleet renewal, and are committed to the phase-out by 2015, which is the ultimate cut-off year for a zero-single hull tanker fleet as mandated by the IMO.

So it is fair to say that in terms of overblown tonnage capacity in the dirty tanker markets in 2015, if flag states, port states and operators expedite the phase-out completely, even if global oil demand goes against current analytical estimates and remains lacklustre, at least excess capacity would be mitigated to some degree. It has in fact been estimated that on top of the complete phase-out of single-hulled VLCCs, for example, it would take only a 12 per cent slippage to the 2010 VLCC order book to realize a stagnant net fleet change. Any further slippage or cancellation of orders would net a fleet decline in 2010.

The tanker industry should take note that scrapping could be the only factor that it has control over to ensure healthy earnings by controlling tonnage availability. Another measure that operators have already been employing and should employ for as long as charterers have too many choices on the markets, is slow steaming their vessels so that more can be kept away from spot trading.

> *OPEC's decision to cut crude export volumes by 4.2 million barrels per day has pegged compliance between 65 and 85 per cent over the past year.*

The global economic recovery is likely to drive demand growth over winter and next year.

“*Dirty tanker owners and operators seem to be placing their bets on vastly improving global oil demand going forward, since there has been no dramatic slashing of the order book despite rock-bottom earnings and massive oversupply of tonnage in many markets at the moment.*”

It must be repeated though, that almost all indications point to global oil demand growing from this year's levels, if not significantly in two to three years, then by 2015 at least. The IEA said in November this year that global oil demand is on track for YOY growth in the last quarter (Q4) of this year. According to the Paris-based agency's Oil Market Report, this would be the first time since Q2 2008 that global oil demand has grown year-on-year. The IEA has also further revised upwards its global oil demand forecast for this year and 2010 by 210,000 bpd to 84.8 million bpd and 140,000 bpd to 86.2 million bpd respectively. November's revisions were attributed to “stronger preliminary data in OECD North America and buoyant demand in non-OECD Asia/Middle East”.

Coming back to pressure from reduced OPEC exports, it is still unclear when the cartel will start reversing their production quota. For the immediate term, there is some consensus that OPEC will not be changing current target cuts when they meet next in the Angolan capital of Luanda in December. The production reductions had been introduced almost two years ago chiefly to stem what was then sliding prices by chipping away at swollen inventories around the world – a measure which has 'worked' since current prices just beneath $80 have been described by almost all the oil producing nations as being at a good enough level to not warrant additional export cuts on top of the 4.2 million bpd target.

On a more positive note for the tanker industry, there has also been talk that the cartel might even decide to increase supply quotas at December's meeting, which would be the first time since September 2007. The longer-term view here would be concern for the global economy, for which recovery might be long and protracted if oil prices carried on firming past $80 per barrel. A longer-lasting recession would affect OPEC earnings on the back of even weaker petroleum demand due to lower household and industrial consumption. Such a scenario would outweigh the highly short-term gain on any price spikes now.

On another positive note, oil majors around the world have still been pushing ahead with billions of dollars worth of production and refining expansion, despite the downturn slashing their 2009 results significantly. Analysts say paying attention to how much the majors are pouring into new projects is a good indication of how they view oil demand going forward, and at present the sentiment is bullish on a global economic recovery led by up and coming oil-hungry powerhouses in Asia and the Middle East.

For the moment, dirty tanker owners and operators seem to be placing their bets on vastly improving global oil demand going forward, since there has been no dramatic slashing of the order book despite rock-bottom earnings and massive oversupply of tonnage in many markets at the moment. However, it would be a good idea for them to once again take note that while they can make an impression on market conditions by a well-managed newbuilding and scrapping programme, the global economy coupled with unpredictable demand and prices are pretty much out of their control. 2015 is still a long time away though, and it would be a prudent call to bet that the recession would be completely over by then while consumption rises as the ‘good times’ return. MG

Transportation and Logistics

Trends on the Horizon

Chelsea C. White (cwhite@isye.gatech.edu) is the H.Milton and Carolyn J. Stewart School Chair of the H. Milton Stewart School of Industrial & Systems Engineering and holds the Schneider National Chair of Transportation and Logistics at the Georgia Institute of Technology, where he is the Director of the Trucking Industry Program (TIP). He is also a director for Con-way, Inc.

WE ARE all aware that changes are occurring in the freight transportation and logistics industry, and there is clear value in stepping back and trying to identify key trends that will affect this industry over the next two to five years. We now provide a list of trends with the objective of stimulating discussion and direction to companies in this industry intent on improving service to the customer/shipper.

We begin by enlarging the industry to be examined and include supply chain management, analysis, operations, and design in addition to freight transportation and logistics. Enlarging the scope of this article is consistent with a trend that has been on-going for some time: the expansion of the core competency set of firms in this industry. What was once a trucking, air express, or parcel express company has now expanded into a supply chain and logistics company with 'one stop shipping' and 'value added' as mantras. Successful examples of this restructuring are UPS and Federal Express in the U.S. This expansion is in part a reaction to downsizing and out-sourcing, best practices in much of the manufacturing industry, and to the desire to outsource complex logistics problems involving the international movement of goods to companies with proven competence.

The expansion of a firm's core competency set has been in parallel with the expansion of its geographic reach and hence the development of the multi-national or globally integrated firm in this industry. An oft-successful strategy for improving market share in the home market has been to provide international services that 'capture' freight manufactured off-shore bound for the home market. Thus, the globalization of manufacturing industries has occurred in parallel with the globalization of service firms that move manufactured goods internationally. As firms developed competency in moving goods from, say, China to North America, interest has also increased beyond just moving goods from the country with the supplier footprint (typically, a country with low labor wages) to the country with a large domestic market to include moving goods domestically within the country with the supplier footprint as its economy and consumer consumption grows.

With every trend, there is often a counter-trend, and the counter-trend in response to globalization is often referred to as reverse globalization. Supplier footprints off-shore means that the lower cost for manufacturing off-shore more than compensates for the concomitant increase in logistics costs due to transporting goods over longer distances and across international borders. Waits at international borders can be unpredictable and hence increase the variability of lead times. (Increases in lead time mean and variance leads to increased inventory buffer stock, which may cause increases in total supply chain cost, assuming customer service levels are not compromised.) However, due to (in large part) the rapid increase in the cost of energy that occurred in early 2008, supplier footprints in, say, China for the North America market started to become less attractive in terms of total supply chain costs as compared to supplier footprints in the Caribbean or Mexico for the North American market. Other tactics for reducing energy costs were used in addition to moving supplier footprints, and these included mode shifts (e.g., moving goods from trucks to rail, noting that there is a four fold decrease in energy consumption by such a change in mode), improved efficiency within a mode (e.g., reducing vessel and vehicle speed and hence reducing energy consumption), and product and packaging design to reduce weight and cube.

The prospect of high energy costs in the future have prompted countries and firms to invest in research and development intended to reduce the energy consumption of current freight transportation technologies (e.g., improved miles per gallon) and in new forms of freight transportation and energy sources (e.g., bio-fuels). We remark that new, more fuel efficient vessels and vehicles for moving freight tend to enable globalization, or at least mitigate reverse globalization. Another enabler is a more efficient physical infrastructure for moving freight, and examples include the Panama Canal expansion, Dubai Logistics City, and the extensive port expansion projects in Singapore, Hong Kong, Hamburg, Rotterdam, and elsewhere.

We are all aware that the run up in energy prices in 2008 was followed by a global recession and significant stress on the industry. The concomitant reduction in world wide consumer demand has lead to a significant number of bankruptcies, reductions in fleet size and aging fleets for the firms able to survive, reductions in the value of a used vehicle or vessel, and dramatic rate and staff reductions. These forces still remain as this article is written and are likely to remain throughout 2010.

The increase in the cost of fuel in 2008 occurred roughly in parallel in the U.S. with concerns for the environment and the industry's carbon footprint. These latter concerns have lead to significant interest in so-called green supply chains and the design of supply chains for environmental sustainability. Security became of considerable concern in 2001 in the U.S. Design for security has since evolved into interest in the design of resilient supply chains – supply chains that can degrade gracefully and recover quickly from major disruptions, e.g., terrorist attacks and/or threats, extreme weather, labor unrest, major accidents. More generally, multiple criteria - beyond efficiency - are becoming important in supply chain design.

A trend growing in package express is disintermediation, which means in this case by-passing retail stores with shipments of goods from the wholesaler by shipping directly to the customer (B2C). This type of disintermediation is enabled by customers placing orders over the Internet and tends to increase the business (and density) of the package express industry and to decrease the use of modes that distribute freight from wholesaler to retailer (B2B), such as less-than-truckload trucking.

Disintermediation is one trend that is enabled by information technology. More broadly, we believe that IT is the key to the next level of supply chain productivity by enabling real time control of the supply chain, based on real time data. Sources of the data include: inventory levels; production rates; various aspects of the vehicle, vessel, or trailer (e.g., position, speed, direction, temperature, oil or air pressure); driver alertness; traffic congestion; weather; and freight status and visibility. The use of real time data on which to base decisions in real time should improve supply chain productivity, and this improvement represents the value of information. There are a variety of challenges; we mention two. The first challenge is to determine the expected improvement in productivity, assuming real time decision making. Solving this problem would lead to better informed IT systems purchases. The second challenge is operational execution. In real time, how can we convert these data into decisions and then implement these decisions in order to improve supply chain productivity? Standard (based on mathematical programming techniques) algorithms (e.g., for routing and scheduling) do not explicitly take into consideration the sequential nature of these problems nor the inherent randomness of the data. The challenge to do so algorithmically is due to the fact that a supply chain is inherently controlled by multiple agents, each with a different description of currently available data about portions of the system. We anticipate that the global movement of food, pharmaceuticals, and other temperature sensitive goods will be the first to have supply chains controlled in real time.

In summary, we have lists of collection of trends in this industry, some of which are on-going and several of which are on the horizon, in keeping with the content of this special issue of *Maritime Gateway*. MG

> *The globalisation of manufacturing industries has occurred in parallel with the globalisation of service firms that move manufactured goods internationally.*

Mark Millar (mark@markmillar.com) is Managing Director of M Power Associates – a specialist provider of industry-specific Marketing, Consulting and Education services that empower superior performance and enhance competitive advantage. Mark has over 20 years of experience in Supply Chain and Logistics, including 15 years in Asia Pacific - with extensive experience in the China market.

China Logistics

Leading the Way

MULTI-NATIONAL companies first came to China to take advantage of low-cost labour and Special Economic Zones; now they are in China to sell products to Chinese consumers in the domestic market. One development has fuelled the other. For the logistics industry, this means the emphasis is no longer just on moving products from factories around China to the export ocean ports located on the Eastern seaboard. Now there is just as much emphasis on moving goods within the domestic China market to reach the increasingly prosperous consumers located all over this huge country.

China's logistics industry has been a key part of China's relentless economic growth and has adapted to these changing distribution patterns. The size of the logistics industry in China grew at 18 per cent during 2008, according to Transport Intelligence who forecast continuing robust growth and predict that by 2013 China's contract logistics industry will take over from Japan's to become the largest in the Asia Pacific region. Although logistics in China is the backbone of the domestic supply chain, the industry itself remains complex, inefficient and fragmented. In today's digital world, people living in even the most remote provinces have access to modern communications and information technology such as satellite television, the internet and the ubiquitous mobile phone. All these tools are creating global awareness and fuelling increasing desire for international consumer goods. More than half the population now lives in cities, and the growth drivers of domestic consumption are the consumers living in second and third tier cities in central, western and northeastern China, far away from the first-tier cities of Shenzhen, Guangzhou, Shanghai and Beijing. These cities include provincial capitals such as Kunming, Hohhot, Xian and Urumqi and hundreds of other municipalities whose names are rarely heard outside China, but have populations measured in millions. The goal of brands and manufacturers – both local and international – is to work out how best to capitalise on this expanding consumerism in the hinterlands. Therefore the challenge for the domestic logistics sector is to provide the services that enable the distribution of products that hundreds of millions of Chinese consumers throughout the country want to buy.

Impressive infrastructure

Fortunately, the movement of goods in China is becoming easier, in large part because of the enormous investment in infrastructure over the last decade. Container ports on the Chinese mainland have increased capacity and significantly improved productivity, setting some best in class benchmarks for the maritime industry. Six of the world's Top 20 container ports are in mainland China (Shanghai, Shenzhen, Qingdao, Ningbo, Guangzhou and Tianjin) and they have played a significant role in China overtaking Germany this year to become the world's largest exporter. In the month of September 2009, Shanghai port handled 2.23 million TEUs - overtaking Singapore as the world's No. 1 container port, although based on year-to-date volumes, Singapore remains slightly ahead.

New roads, highways and bridges have reduced some inefficiencies in the domestic supply chain. Among the most impressive are enormous engineering projects such as Shanghai's Yangshan Port and the Hangzhou Bay Bridge. For companies moving product around the Yangtze River Delta region these developments have slashed some journey times in half whilst also reducing traffic congestion.

Elsewhere, the road network, which carries some 71 per cent of domestic cargo, has been transformed. Throughout the country thousands of kilometers of new expressways are being built every year. Twenty years ago China had 147 km of expressways, ten years ago it had expanded to 8,733 km and in 2009 it has 60,346 km of expressways. China now has the second largest highway network after the United States. By 2020 this National Trunk Highway System (NTHS) will extend over 85,000 km and will connect every city of more than 200,000 people.

China also has a network of new airports including flagship developments such as Beijing Capital Airport, Shenzhen Bao'an Airport and Guangzhou Baiyun Airport. More airlines and more routes make air freight a fast and safe option for product distribution throughout China, however the high price of this speed and security, means that air freight only accounts for 1 per cent of the total domestic cargo volume.

The railway network is comprehensive in its geographic coverage, but is not widely used for cargo movement – only 15 per cent of domestic cargo is moved by rail. There is minimal containerised rail infrastructure and the priority for the railway is to move people, the military and bulk cargo so, although cheap, it is not a compelling option for cargo movement. That said, there is substantial investment planned for rail infrastructure, including containerisation, so over time, it will become a more attractive option for general cargo movement. The transportation network will only keep on getting bigger and better, with China investing billions of dollars in infrastructure expansion each year. At the same time, we can also expect China's under-developed logistics industry to continue to improve because of both market-led factors and government initiatives.

3PL Options

For quite some time, one of the biggest questions to consider when outsourcing your logistics in China to a Third-Party Logistics service provider (3PL) was whether to work with a local Chinese 3PL or an international 3PL, and the options were reasonably clear. The local Chinese 3PL companies have the on-the-ground knowledge, local connections and operate on a lower cost basis. The drawbacks were that they often didn't have the depth of industry knowledge or sector-specific expertise, their staff was inadequately trained and the information technology systems were not at the standard needed by MNCs. The relatively recent emergence of the logistics sector meant that most local

> *"The challenge for the domestic logistics sector is to provide the services that enable the distribution of products in demand."*

[Engineering marvels – Bridges at Yangshan Port (1) and Hangzhou Bay (2)]

companies had not benefited from exposure to modern supply chain management and international best practices. Meanwhile, the international 3PLs such as Exel Logistics (now DHL), TNT and UPS offered the management expertise and sophisticated technology solutions together with international best practice. These global 3PL players also had the sector level expertise, gained from extensive experience within specific industries such as fast-moving consumer goods, automotive and electronics. Whilst the local and international 3PLs have their traditional strengths, the differences between these categories of logistics providers are becoming increasingly blurred. The local Chinese 3PL companies are continually improving and have gained some international exposure from working with MNCs. At the same time, the international 3PL companies have gained more knowledge about local market conditions and are employing more local management who are moving through the ranks.

> *"The under-developed logistics industry will continue to improve because of both market-led factors and government initiatives."*

Move to consolidation

Currently, the logistics industry in China is comprised of four main types of Logistics Service Providers (LSPs). Local Chinese LSPs are either large State Owned Enterprises (SOEs) such as COSCO Logistics, China Merchants and Sinotrans, or privately-owned logistics companies that can vary in size from small locally focused companies with just a few trucks, warehouses or barges, to larger companies with a broader geographical reach - albeit still predominantly on a regional, rather than national, basis. In recent years a few privately owned Chinese 3PL companies have demonstrated leadership in developing solutions for MNC customers - such as Guangzhou's PG Logistics Group (PGL) that has grown to become a nationwide service provider.

However, local Chinese 3PLs like PGL and BEST Logistics Technology are the exception rather than the rule. In the fragmented China logistics industry, servicing nationwide distribution requirements throughout the domestic market typically involves several third party providers – in some cases shippers are using more than 20 different companies to distribute their goods throughout China. The restrictions on foreign ownership of logistics companies were gradually lifted as a result of China's accession to the World Trade Organisation (WTO), such that since 2005, foreign logistics companies are no longer obliged to operate as Joint Ventures (JV). Lifting these restrictions opened the way for the international 3PLs to establish 100 percent owned companies, known as wholly owned foreign enterprises. Some bought out of their joint venture, while others acquired their JV partner, as TNT did in 2006 when it acquired Hoau Logistics. More recently, in May 2009 Toll Holdings announced it had reached an agreement with China Merchants Group to acquire the remaining 49 per cent shares in its joint venture Shenzhen-based ST-Anda Logistics.

Despite these developments, the industry remains huge and unwieldy. Clearly, consolidation among service providers will continue, in order for the industry to become more efficient and to meet the market demands. In parallel to the ongoing consolidation of the global logistics industry (DHL and Exel, Schenker and Bax), local consolidation in China will follow two main routes. More and more local Chinese companies will group together to form stronger regional and national networks – expect more formal mergers between local Chinese companies. Meanwhile, the international 3PLs will continue to seek acquisitions as a means of expanding their network within China. At the same time as these market-led factors are empowering improvements in the China logistics industry, the PRC government has announced a wide-ranging plan to "rejuvenate" the Chinese logistics industry, which will add additional momentum to the trend towards consolidation amongst industry providers.

Rejuvenation programme

In March 2009 China's State Council issued the "Plan for the Restructure and Revitalization of the Logistics Industry," a directive that addresses some of the major challenges facing the logistics industry. Better known as the Logistics Industry Rejuvenation and Development Plan, the plan is significant because it recognizes that logistics is a significant component of China's overall economic prosperity, is an industry in its own right and is in need of

Official Opening of BEST Logistics Technology's new facility in Linyi, Shandong as the Central Warehouse for Kellogg Food Company.

modernization. Writing in the International Freight Weekly, Lee Perkins of China Intelligence Online said that while specific details have not been finalized "the proposed legislation aims to transform a regionally fragmented, under-agglomerated domestic industry into globally competitive, international logistics firms; to increase the role and scope of 3PLs; to achieve 10 percent growth in added value in the industry; and to substantively reduce logistics costs as a percentage of GDP in line with developed nations like the US".

In the plan, the government identifies the need to encourage Chinese producers and manufacturers to outsource more of their logistics activities to third party logistics providers, as the current levels of outsourcing in China lag behind developed countries. Within China, only 20 per cent of logistics is outsourced - compared with the United States where 50 per cent of logistics activities are outsourced and Japan where the penetration level reaches almost 80 per cent. This low level of outsourcing penetration in China is one of the reasons their logistics industry is inefficient. While the majority of MNCs in China do outsource their logistics, among local Chinese companies the outsourcing level is only around 15 per cent.

The industry rejuvenation plan provides a broad outline of some of the initiatives that we can expect to see launched by the government including: the creation of nine logistics zones, 10 logistics corridors and the development of 10 logistics links connecting 38 key cities. The plan highlights the need for improvements of most aspects of the logistics industry and mentions nine key projects that touch on almost every area of the industry from logistics parks and intermodal facilities, to research and development and has an underlying theme of achieving international standards in all aspects of the industry.

Impact of plans

The logistics industry in China will feel the impact of the Rejuvenation and Development Plan in four main areas: improved skills and training, more sophisticated technology, greater demand due to increased outsourcing, and more consolidation amongst service providers. The plan highlights the need to improve training in order to develop a greater pool of talent within the logistics industry. Shortage of skilled logistics personnel is consistently identified as one of the greatest challenges for businesses in China.

To achieve international standards we can expect to see a greater emphasis on skills training and certification along with more cooperation with overseas research institutes that can bring international standard training courses into the local market. Chinese logistics companies will also upgrade their information systems and adopt more technologies that follow international best practice. At an industry sector level, more technology platforms that facilitate enhanced supply chain visibility will be introduced.

As discussed, the level of 3PL outsourcing will increase and more vertically integrated manufacturers will start outsourcing their logistics. The drive for consolidation will lead to larger logistics companies with broader ranges of services and greater geographic reach, which will also reduce cross-boundary barriers resulting in more efficient and competitive companies.

The overall impact of these latest developments will be to improve the quality of the logistics sector in China. For the customer this can only be good news. The service levels of the industry should come up, costs should come down and therefore customers will get better value. These are encouraging developments, which we will watch with great anticipation. MG

> *"The local Chinese 3PL companies and the international ones have gained enough exposure about each other and are employing more local management."*

Container Terminal Design and Operations

Trends and Advances

Rohit Suraj (rohit.suraj@tba.nl) is Regional Director, TBA Asia Pacific. He is a certified Master Mariner and has had over ten years of experience within the Maritime Industry. His experience includes managing and supervising projects for both small and large terminals operating with both traditional as well as automated solutions.

He also holds a Master of Science (Msc) in Maritime Economics and Logistics, from the Erasmus University and Rotterdam School of Business.

CONTAINER VOLUMES have steadily risen over the last decade despite short term reduction (read the current economy). The vessels themselves have increased in size and the call sizes have become larger. From a terminals perspective land has gotten scarcer and the cost of labour has steadily risen be it in low or high labour environments. Terminal operators are continuously under pressure to offer improved service levels both on the landside and waterside while maintaining or even reducing cost. These factors have contributed to several terminals reaching their capacities both in terms of volume and handling and therefore many such terminals are transiting to new systems in a bid to meet what the market demands.

If we look at terminals around the world today what we see is a basket of facilities that offer varying service levels under equally varying operating conditions and competing markets. It is almost like the proverbial 'fruit basket' where you are met with a variety of different fruits each grown in its own region and under differing conditions. Yet we often find that particular apple from the Far East tasting sweeter than the oranges grown at home. Is this a fair comparison?

I tend to liken this analogy to the terminal industry where I invariably find people comparing terminal facilities and benchmarking one terminals performance against the other even when the operating requirements and conditions are completely different. Benchmarking has and will continue to occupy the majority of intelligent discussions in the terminal industry but the right KPI's for a particular terminal are only correctly set when it is placed in 'context'.

With the experience that terminal operators have today container terminal design has certainly evolved into being a scientific marriage of foresight with the knowledge of hindsight. Design goals and targeted service levels are set first and the terminal and its processes are then engineered around what is collectively called the design goals. The following sections show how this is done and how designs and systems are selected based on merit, longevity and flexibility such that a terminal's design goals are met in the most efficient manner both cost wise and performance wise.

Designing for the future

It is always a desire to be able to predict the future. Unfortunately most of us are not as gifted as 'Nostradamus' was and generally have to live in the real world where the future is far from predictable. Many of the mature terminals today were conceived with the advent of containerization. For these terminals the design process was much harder as the industry itself was in its nascency. Green field terminal design today has come a long way since and the experience gathered over the last fifty years has significantly improved the thought process for the future. In terms of decision analysis 'simulation and emulation' techniques for 'quantitative decision making' have taken on increased significance in the design space. The process of analysing first, then quantifying and finally deciding is what forms the basis of design and system selection using these advanced techniques.

Several terminals worldwide are using such scientific approaches with many also being developed and 'going live' as envisaged. Table 1 refers to the process of designing a 'terminal facility and system plan' using simulation techniques.

Setting the goals! What should the design targets be?

Only the right targets will allow the right design! The setting of a terminals design goals forms the crucial building block for the downstream design process be it infrastructure (quay + yard) or

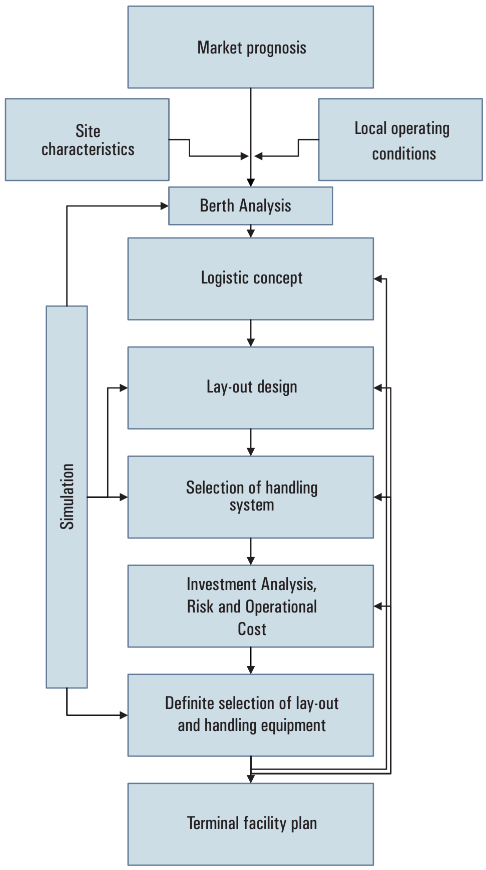

Table 1: *Design Process using simulation*

superstructure (equipment and IT). If one were to look at existing terminals today there are several examples where terminals have reached their design ceilings. With such terminals it is not so much as to why the terminal is not performing beyond a certain cost / performance ratio but more about understanding what these terminals were designed to achieve. It is always important that a terminal is designed to be flexible to accommodate change. Therefore accommodating increased volumes, differing volume shares (road, rail, transshipment), ability to increase waterside productivity and other such terminal markers should be so designed that should the need arise they could be easily ramped up. Frequently used design measures like volume per hectare, TEU per metre quay, number of berths and other such arcane thumb rules would most often lead to limited success in actual operations. For example, a terminal designed to perform at 1500 TEU per metre quay would automatically do less TEU at the same box count with a decrease in TEU factor than another terminal with an increased TEU factor designed for the same value. Service levels i.e. with waterside and landside productivity are the first key design targets that need to be set. This then applied using an approach with simulation offers insight into what achievable throughput is possible.

Table 2 below shows some design values that have been catered for with terminals being built for the future. For each there are a different set of conditions and different systems that result in the numbers shown.

Equipment, Electricity, Automation – The New Kids on the Block!

Many of us confuse automation with the displacement of labour and therefore automation has been considered synonymous with high labour cost environments. While high labour costs is a significant driver, with the need to consider automation, it is certainly not the only one. There are several levels of automation at a terminal and automation per se is the increased use of IT i.e. through software and hardware deployment, thereby automating a certain process that would otherwise be handled through human intervention. 'Scale of operations' is therefore another significant driver and several levels of automation are present today that offer an attractive alternative even in countries with low labour costs.

> *In general the common consensus amongst most operators is to ensure that the design is kept robust to cater to a market that will inevitably demand more.*

KPI	Typical value	New deepsea port	High performanceterminal
Berth throughput	800-1000 TEU/m	2,000-2,500 TEU/m	3,000-3,500 TEU/m
Berth productivity (main liner)	90bx/h	150 bx/h	300 bx/h
Quaycranethroughput	90,000 bx/year	1,20,000-150,000 bx/year	150,000-180,000 bx/year
Quay crane productivity (gross)	25bx/year	35bx/h	45 bx/h
Area utilization	900TEU/h	1,600 TEU/ha	1,600 TEU/ha
Yard utilization (in peak)	60 - 80%	85%	85%
Gate peak %of daily colume)	10-12%	6-8%	6-8%

Table 2: *Performance and Design Goals*

Service levels i.e. with waterside and landside productivity are the first key design targets that need to be set. This then applied using an approach with simulation offers insight into what achievable throughput is possible.

Another driver to some recent developments in new equipment is the increased need to go electric, principally to save cost first, and then be more environmentally friendly. This has led to several electric deigns being available on the market. Electricity is cheaper than liquid fuels and annual inflation rates are also lower than that for diesel. Therefore while planning over the lifetime of a 'container terminal' electric equipment most often comes out on top as the preferred solution.

The most popular concept in high density stacking is the RTG (Rubber Tyred Gantry) and in South East Asia several terminals operate with this as the primary stacking equipment in the yard. The most recent version now available is the fully electric RTG which operates on either a low bus bar or high bus bar system. One other alternative is the cable reel electric RTG which is an alternative for smaller terminals where block changes are limited. While the positives with an electric RTG system are evident, with the savings in fuel consumption, there are drawbacks. Essentially this is to do with the inflexibility in operation especially when the RTG is changing blocks or lanes on the grid. The changeover cycle time is increased with the plugging and unplugging of the machines leading to increased equipment deployment in operation. Additionally there needs to be trained manpower in the yard to effect such changeovers. Still in terminals where the demands for high speed handling are not at the very boundaries of current technology these systems can prove beneficial.

Another popular concept is the use of RMG's (Rail Mounted Gantries) in the yard. This concept is gaining popularity with primarily two modes of operation. One where the 'container travels to the crane' i.e. in an side serving orientation (E.X RTG and Cantilever RMG's) and two where the 'crane travels to a container' in an end serving orientation. With end serving configurations the yard blocks can be arranged in either a 'perpendicular to quay orientation' or 'parallel to quay orientation'. The exact orientation and disposition of the blocks depend on the nature and demands of the volume flow across the terminal. With increased transhipment 'parallel blocks' i.e. parallel to the quay wall are preferred over 'perpendicular blocks'

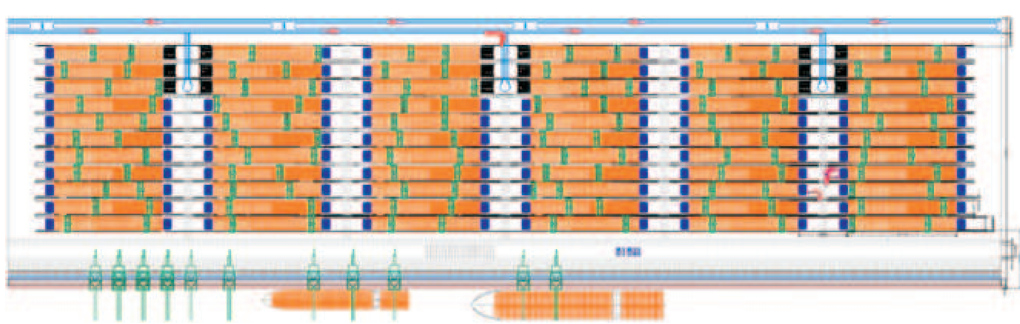

Figure 1: *Example Linear Quay with Parallel RMG's/ASC's Stacks – End Serving*

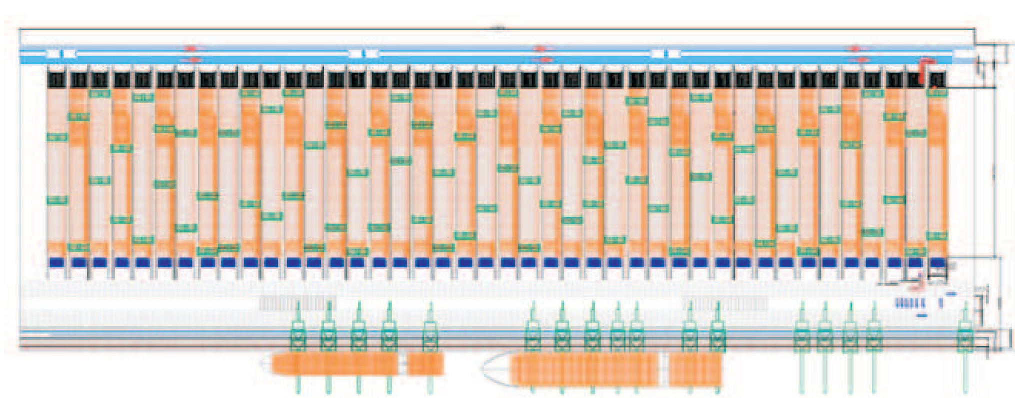

Figure 2: *Example Linear Quay with Perpendicular RMG's/ASC's Stacks – End Serving*

wherein blocks are arranged at right angles to the quay wall. Figure 1 and 2 shows these arrangements.

RMGs being mounted on rails are more rigid and therefore in end serving configurations can be technically engineered to move faster. They achieve roughly twice the speed of RTG's when gantrying. This speeds allow for faster exchanges of containers and is one of the key reasons why the 'peak filling rates' achieved in RMG stacks exceed those achieved in RTG stacks. Therefore they provide an even denser operation which leads to more effective use of the grid.

A popular concept with side serving orientations is the C – RMG's (Cantilever rail mounted gantries). Here the RMG works akin to the RTG concept where they work a bay in position with little or no gantrying with a container. Again the ability to be able to go wider than standard RTG concepts allow for increased density and being electric powered they are also economical in operation.

The above RMG designs are easily automated with the actual duties in the stack being performed by a 'suite of software'. This then allows for automatic planning and stowing of containers in the yard. It is from here that these designs adopt the 'A' to the RMG i.e. A – RMG, the 'A' depicting that the yard crane is automated.

Automated stacks as the only level of automation in a terminal are gaining popularity owing to the advantages of the system wherein housekeeping is better managed individually by the cranes without intervention and this can be performed during off peak hours which adds to the benefit. Further automated yards can work without 'yard lighting' in the night with yard lighting being restricted to the minimum for security and personnel deployment (when semi – automated).

Several terminals in Europe, US and Asia operate with these systems successfully and the first releases of the software have also matured so these concepts are no longer only for the 'brave'!

Looking at horizontal transport we see a move towards automation in this quarter as well. Typically this level of automation is seen in 'high labour' countries. The concepts available today are the AGV (Automated Guided Vehicle), the L-AGV (Lift – Automated Guided Vehicle), the ALV (Automated Lifting Vehicle) also known as the auto shuttle, Automated straddle carriers and Cassette AGV's. All of these systems have their own merits and find themselves being viable when the nature and design of the terminals they operate within demand them but it remains a testament to the engineers who have brought these systems to the current stage of maturity**. The so called fully automated terminals in the world are basically terminals who have automated both their yard operations and horizontal transport.

Summing Up!

Whatever the system or mode of operation there is never one system that succeeds in all quarters or can be considered the best. The latest and most advanced equipment may not necessarily be the right equipment for a particular facility but certainly must be placed in perspective of what is demanded of the facility. When the 'scale of operations' so demand and with the right 'risk assessment' and 'financial viability' research, these systems are easily seen to offer higher efficiencies in operation with the huge savings in operational cost defraying any upfront investments.

What significantly changes in price is the cost of IT or in other words the TOS (Terminal Operating System), as this is basically the heart of an automated terminal but most often what people do not place in perspective is the cost of such IT in the total investment being made with the facility. Most often in large scale facilities this would amount to less than 1% of the total project costs. It is clear that we will see transitions to new equipment and it should be considered, as in any other industry, a progression of technology. MG

*** ALV, Lift AGV and Cassette AGV's are available but not deployed as yet/ Prototypes only*

"The latest and most advanced equipment may not necessarily be the right equipment for a particular facility but certainly must be placed in perspective of what is demanded of the facility."

Getting It Right When Things Go Wrong

Keith (keith.sturges@lloyds.com) started as an average adjuster with E. R. Lindley & Sons in 1975, progressing to position of Manager of the Cargo Department with responsibility for handling claims under cargo policies and the cargo side of large general average and salvage cases. He joined Lloyd's Agency Department in July 2008. His role includes, inter alia, the training and education of Lloyd's Agents around the world and assistance with business development.

LLOYD'S OF London, with a history stretching back over 320 years, is privileged to be one of the world's best-known and respected brands. From humble beginnings, when Edward Lloyd served coffee in his shop to entrepreneurs who met there daily to offer a form of insurance to the owners of ships and cargoes loading in London, Lloyd's remains at the forefront of international risk Lloyd's Agents have come a long way in adapting to the modern needs of insurers.

It was in 1805 that Lloyd's decided it needed a man in Dover to protect its underwriters "against the depredations of local boatmen". The idea of local representation obviously caught on because, in 1811, Lloyd's decided it needed a network of agents in key locations. The network quickly expanded to cover the globe. The role of Lloyd's Agents then was to provide shipping and other intelligence from their regions that might be of interest to the underwriters.

The main role of Lloyd's Agents today is to provide marine claims services in their areas, including surveying, adjusting and other risk management activities. There are some 300 agents around the world and a similar number of sub-agents. They are in every major port and commercial centre and look after the interests not only of Lloyd's Underwriters but of many of the world's marine insurers. When faced with a casualty in a far off place, the first words of many an insurer are "Go to the nearest Lloyd's Agent."

When things are going wrong on the ground, the underwriter needs confidence that there will be someone there to help put things right. Lloyd's Agents are carefully chosen as service providers of the highest quality who can be relied upon to look after an insurer's interests when ship or cargo suffers damage.

In addition to periodic inspections and audits, all Lloyd's Agencies have to undergo a process of training and examination in order to keep their appointments. I feel privileged to be a part of this process. My background as an average adjuster working at the sharp end of marine claims has taught me that quality service rendered at the time of a casualty is invaluable – it ultimately saves insurers money whilst keeping their customers happy. Sadly, the claims department has always been seen under poor light in many insurance companies – after all, "Claims" is money going out, not otherwise. This has resulted over the years in under-investment in marine claims education. Many of the eminent average adjusters I worked alongside – undoubtedly some of the cleverest marine claims minds in the world – have been lost to the profession through retirement. They have not been replaced and the younger generation of practitioners who have come into the claims environment have not had the same opportunity to acquire the skills, knowledge and experience of their predecessors.

In both claims adjusting and marine surveying, the international marine community has allowed the majority of the knowledge to become concentrated in a diminishing pool of ageing experts. In my view, there has been a significant skills shortage in the industry for the last 10 years.

The traditional route into marine surveying was via the sea. Many hull and cargo surveyors were individuals who had dirtied their hands in the hot grease of a ship's engine room before a desire for terra firma discharged them ashore and into a profession for which they were ready made. Today, this pool of experienced seafarers, particularly in developed countries, is much smaller. Most people coming into cargo surveying these days are learning their craft on land.

In order that the Lloyd's Agency Network keeps pace with the changing demands of

insurers we have introduced two recent changes. The first followed an acceptance that the Department could no longer play a purely administrative role; it needed skilled and experienced claims personnel who could talk to surveyors and insurers' claims people "in their own language". The second was in the area of education and was an inspired recognition that an enthusiasm to deliver education would foster an enthusiasm amongst the Agents to receive it. That has proved to be true.

The Agency Department invests a significant proportion of its time and its budget in regional training seminars. In the last year, these have taken place in the Caribbean, West Africa, South-East Asia, Europe and South Africa. At each of these seminars, up to 30 agents from the region have congregated for intensive training, at the end of which they are required to sit for an examination.

As the person responsible for delivering the training, I have been hugely encouraged by the desire of the Agents for education. Many of them are pressing for a new module that deals in depth with the handling, adjustment and settlement of cargo claims. How nice that the students are begging the teacher to teach them! The wait is nearly over; CCSP3 is soon to be delivered and it will become mandatory for all Lloyd's Agents who adjust and settle claims on behalf of insurers to attain it.

The commitment to education and an insistence on uniformly high standards across the Network are just two of the ways in which the Lloyd's Agency Department is responding to the needs of the modern marine insurer. Speed of response and regular status reporting is these days a key requirement of all principals. That has to be coupled with an end product that is uncompromising in quality. We ensure that all our Agents meet and maintain these standards. We have introduced a facility for any principal to instruct a Lloyd's Agent anywhere in the world via the Agency Department in London, whereupon the instruction is managed by one of our experienced claims team. The Agency Department itself makes no charge for managing an instruction in this way.

The new management regime created fifteen months ago set out with a simple aim – to ensure that the Lloyd's Agency Network is the world's leading and most reliable network of marine service providers for both for casualty work and pre-risk and loss control inspections. We have always had experienced and highly-regarded experts in the Network. We are driven to ensure that every single one of our Agents in every single location worldwide is of the same high standard so that no other organisation is better equipped to service the needs of marine insurers in the modern world … then we will look for ways to make it even better. MG

> *It was in 2000 that the first examination for Lloyd's Agents, the Certificate of Cargo Surveying Practice (CCSP1), was made available for study by distance learning. CCSP Stage 2 followed in 2006.*

Iron Ore Exports

Driven by Chinese Demand

Sreekumar Raghavan (sk@commodityonline.com) a senior business journalist, is Managing Editor, Commodity Online, India's largest vertical on commodities based in Cochin, Kerala. Earlier, he worked for the Financial Express and The Cyber Media Group. He has done several special stories, articles, and columns covering a wide spectrum of business - IT, tourism, commodities, agri-business, finance and economic policy issues.

UNTIL A few years ago, India's iron ore scenario was quite predictable. It was self-sufficient in the mineral and exported almost 50 per cent of its low grade ore thanks to the Chinese market ever willing to lap up more quantities. In fact, it was the cheaper iron ore from India that has given a boost to China's infrastructure growth. It also enabled them to bargain hard with other major iron producing nations of Australia and Brazil.

According to a recent Bloomberg report, iron ore exports doubled in September 2009 on an annualised basis due to increased demand from China steel makers. Sales rose to 6.3 mn tonnes from 3.33 mn tonnes a year ago, the agency quoting Federation of Indian Mineral Industries said. Sales in the six months ended 30 September rose 13 per cent to 45 mt, the group said.

Paradigm shift

In recent years, there has been a paradigm shift in the thinking of policy makers in Delhi. The prime question is why should India export iron ore? India's rising steel industry needs more good quality iron ore and it is the responsibility of the mining industry to ensure its availability. As per 2007 figures, India holds the fourth position in iron ore production at 206 million tonnes that constitutes 10 per cent of the total global output of 2043 mn tonnes.

The National Mineral Policy 2008 emphasizes utilisation of low-grade ores and the ministry has decided a threshold value for ores at 45 per cent iron cutoff grade. Contribution of total production of low-grade iron ores, of less than 60 per cent iron, is presently 30-35 per cent of total production of all grades, and in view of technological upgradation and the demand from China, 55-60 per cent iron grades are being exported after beneficiation. India exports about 100 million tonnes of iron ore, mainly of low grade, to China.

Although the dollar earnings from iron ore export to China constitute only a small proportion of overall merchandise exports, it is a crucial element in India's bilateral trade with China as iron ore constitutes 48 per cent of India total exports to China. India has long-term contracts with Japan and Korea also. So it might not seem possible to slowdown India's export of iron ore in the near future.

But closely linked to the earlier question of why India should export the ore is the strategic question whether India needs to become a steel major and start exporting more steel instead of iron ore. Even otherwise, India needs plenty of steel for its construction projects which is expected to cross US $1 trillion in value by 2012. India's steel consumption is rising at an annual rate of 16 per cent and the scope for further rise is immense as per capita steel consumption is only 40 kg compared to 150 kg across the world and 250 kg in China.

India's National Steel Policy has envisaged steel production to reach 110 mn tonnes by 2019-20 but based on current projects, both Greenfield and brownfield, the steel capacity is expected to touch 124.06 tonnes by 2011-12. In that case, the industry needs more iron ore and hence the government moved swiftly to curtail exports through additional export duties.

In 2007, the India Government increased the export duty on iron ore and concentrate by Rs 300 ($6.78) per tonne which clearly is not favourble for mining companies who aim to export as well as Chinese stell companies that import the commodity. Many of them expressed shock at the government decision. But the broader agenda before the government at that point of time was to begin a move to conserve scarce resources of iron ore for domestic use. Later on when exports dipped, government was forced to reduce export duty on iron ore from a level of 15 per cent (imposed in June, 2008) to 8 per cent last year and thereafter to zero.

With 150 kg per capita steel consumption, the Chinese steel makers are ever thirsty for more iron ore to reach their smelters.

Recently, the Steel Ministry has urged the Union Finance Minister to impose 10 per cent duty on exports of all classes of iron ore to ensure that domestic steel companies get the requisite iron ore for increasing their production capacity. Recent reports suggest that ore exports have picked up substantially on revival of demand in spot markets in China. During the fiscal year 2008-09, India's iron ore exports even registered a marginal 0.4 per cent growth to 104.7 million over the previous year. The steel ministry fears that exports will shoot up further once the global economy is back on growth track.

Moreover, domestic consumption of the metal would surge as top steel makers such as SAIL and Tata are setting up huge steel capacities. The steel ministry's proposal is for imposing export duty across the board, for all categories of ore. At present only iron lumps attract 5 per cent export duty while there is no duty on iron ore fines. At current price of about $70-80 per tonne, the steel ministry's proposal would mean that mining companies would have to pay Rs 350-400 per tonne as export duty.

Exports surge

India's iron ore exports rose 1.7 per cent in the April to August period because of higher demand from steel makers in China, the biggest buyer of the raw material, an Indian mineral industry group said.

Overseas sales increased to 37.08 million tonnes in the five months ended August 31 from 36.47 million tonnes a year earlier, the Federation of Indian Mineral Industries said in a statement. Sales in August rose 40 per cent to 6.28 million tonnes from 4.49 million tonnes a year earlier and were little changed from 6.29 million tonnes in July.

China's steel makers are buying more iron ore as the government has implemented a $586 billion stimulus package to revive growth. China's economy is forecast to expand 8.2 per cent this year, compared with a March estimate of 7 per cent, according to the Asian Development Bank, easing concern that the nation may slow raw-material imports.

China may buy 20 per cent more iron ore than forecast next year, Canberra-based Australian Bureau of Agricultural and Resource Economics said on September 22. China may import 637 million tonnes of iron ore in 2010, compared with its June prediction of 529 million tonnes, it said.

National Steel Policy

It is not clear whether the nation would go by the National Steel Policy 2005 perspective on utilisation of domestic iron

> *"Although the dollar earnings from iron ore export to China constitute only a small proportion of overall merchandise exports, it is a crucial element in India's bilateral trade with China as iron ore constitutes 48% of India's total exports to China."*

India's iron ore exports registered a marginal 0.4 per cent growth to 104.7 million tonnes in 2008-09 over the previous year.

> *At current price of about $70-80 per tonne, the steel ministry's proposal of imposing export duty across the board would mean that mining companies would have to pay Rs 350-400 per tonnes as export duty.*

ores. It clearly states that "exports to China are mainly fines and concentrates, which have little use in India except as a negative environmental externality, make up about 90 per cent of Indian iron ore currently. As investments are made into beneficiation, sintering and pelletisation in the country, which will use these fines the growth in exports of iron ore is likely to decline. Exports have thus been estimated to be around 100 Mt by 2019-20."

"In terms of future policy, export of iron ore, especially high-grade lumps, would be leveraged for imports of coking coal or for investment in India. Long-term export supply of iron ore would be confined to a maximum of five year contracts. This duration would be reviewed from time to time. A judicial balance would continue to be maintained between exports and domestic supply of iron ore."

Iron Ore Exports from India

Year	Quantity (in 000 tonnes)	Value Rs (in crore)
2004-05	87285	14727
2005-06	84046	16829
2006-07	91425	17656
2007-08	68473	23400

The iron ore producers have maintained that they have exported only the surplus and there is sufficient supply to meet domestic demand and hence there is no need to restrict exports.

At this crucial juncture, when China and other major consumers are looking forward to increased India supplies on the one side and rapid expansion taking place in India's steel industry which has earned the 5th position worldwide - it is not yet clear what will be the future scenario of India's ore exports as everything hinges on a policy decision from the government.

Increased investments in pelletisation and beneficiation needs to be undertaken to reduce alumina content and for production of high quality sponge iron. Earlier, technology and high cost of operations forced many mines not to venture into such processes. In recent, years many large firms are establishing or acquiring such technologies to convert more fines into usable iron ore.

Even as the debate over whether iron ore exports should be restricted or not continues, a more pragmatic approach necessitates the expansion of existing mines and opening new ones to meet the requirements of steel industry expansion set out in the National Steel Policy. Technology upgradation and clearing supply chain and infrastructure problems are top priorities for industry and the government. Indeed, the rail, road and port connectivity has to be improved immensely for transport of iron ore for exports and domestic industry.

Both iron ore mining sector in India and its major consuming industry-steel whose growth also depends on the former, will be eagerly watched by global players as India strives to increase its strength in both. MG

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Raghuram (graghu@iimahd.ernet.in) is a professor at the Indian Institute of Management, Ahmedabad and also the Indian Railways Chair Professor in Rail Transport & Infrastructure Management. He is the member of Coastal Area Development Board, Government of Gujarat; Project Advisory Board, RITES; Committee on Railway Restructuring and is on board of various companies.

The focus of all the stakeholders related to the logistics industry should be more on building capacities and consolidating the industry rather than focusing on short term cost optimization. Such long term measures will not only increase the efficiency and performance of the industry but also reduce the 'largely talked about' logistics costs.

Good logistics needs the involvement of four kind of stakeholders (i) shippers (for ex. Coal India, Hindustan Unilever, small and medium enterprises etc), (ii) logistics service providers (freight forwarders, customs clearance agents, transporters, warehouse providers etc), (iii) industry (associations that focus on verticals, for example, seafood exporters association, tyre manufacturer association, transporters association etc), and (iv) government.

The biggest challenges in this sector are the lack of scale and an implicit focus on short cut based cost optimisation. This has been an area where small entrepreneurs entered the business, satisfying the much required needs of local knowledge and being an 'agent' to a 'principal'. With increased demand from shippers and their customer expectations, the need for scale and branded service is on the rise.

However, past traditions, governmental regulations (for ex. Motor Transport Workers Act, interstate issues which result in self exploitation by truck drivers and providing a channel for side payments) and incentives (lower interest rates for truck purchases by micro fleet owning educated unemployed) have not helped the service sector to scale up. The shortcut-based cost optimisation has resulted in barely achieving breakeven revenues resulting in overloading (with significant public costs) for increasing revenues.

Lack of standardisation and capacity building in storage, handling and transportation activities have kept the industry structure small, and without a focus on higher levels of quality. While stand alone and legacy IT systems are prevalent, networked Electronic Data Interchange (EDI) systems are not so. Integration with payment gateways and online tracking is very nascent.

In spite of all this, logistics happens in this country, day in and day out, like ants, scurrying around the entire Indian landscape, inefficient or otherwise.

A positive thing that is happening is the focus on the infrastructure development where at least the language of its criticality, need for investment, public private partnership, concession agreements etc are being talked about. A lot has happened, though not enough. Governments, investors and developers are learning and we are on the path to putting the infrastructure in place. Telecom, roads, ports, railways, airports and containerisation hardware are beginning to fall in place. The bigger challenge is in the service sector.

The trends for the logistics service are that the need and demand would be there, the infrastructure supply would be there, but the service sector scale and the quality focus would need appropriate interventions. Else, we may continue to be where we are and not provide the much required logistical services for our economic development.

The main responsibility for this should come from the industry level players. They need to focus on standardisation and improving the professionalism through appropriate capacity building of their members. Government and related stakeholders have a role in creating a platform and incentivising, consolidating and branding of players. Shippers need to increase their explicit expectation level by not selecting service providers on just cost basis, but both on cost and performance basis. Service providers need to consolidate, integrate and professionalise.

With the above awareness and consequent action, the trends cannot but be positive. MG

THE USE of Indian ports as transshipment hubs has been a subject of much discussion within the Indian government. It has been a sensitive subject, as a large part of Indian container traffic has been transhipped at Colombo, Singapore and Dubai, adding to the costs of imports and exports.

However, the continued development of India's container terminals, both in terms of hard and 'soft' infrastructure, means the dominance of the existing hubs might be challenged. Will those more advantageously placed ports, especially on India's West Coast start to capture market share of the regional transshipment market in the Middle East and Indian Sub-continent (ISC)?

terminals - either through a direct investment and operation of their own facilities or via "virtual terminal" arrangements.

Cabotage restrictions, which exclude international lines from the domestic market. Full reform helps facilitate international lines in developing hub and feeder operations for domestic cargo.

Why has there been little transshipment at ISC Ports?

There has traditionally been no transshipment at the ISC ports. Ten years ago there were not even many direct calls by deep-sea ships at ISC ports. There were two main reasons.

Dr Jonathan Beard (beardj@ghkint.com.hk) is Managing Director of GHK (Hong Kong) Ltd - part of the global GHK Group and a leading economic and management consultancy. He regularly advises investors, port / airport authorities, terminal operators and financial advisors on the development and financing of transport and logistics related infrastructure.

Regional Transshipment

A Role for India?

What Makes a Good Transshipment Hub?

Shipping lines are the key decision makers over port choice for ocean-to-ocean transshipment cargo. The main criteria for ocean-to-ocean transshipment hubs are:

- Suitable geographic location – i.e. in the loop of lines' major services.
- A dense network of connections.
- Handling speeds, reliability of berth windows and operations, with minimum delays. For ex., no customs involvement in the transshipment operations, and no delays over paperwork. Waiting for approvals can result in missing schedules.
- Cost and tariffs (port charges, container handling charges, etc).
- A large volume of local or OD (origin-destination) cargo (there are exceptions of hubs being developed that have little local cargo, for ex., Singapore, Colombo, Salalah and the UAE ports, and Gioa Tauro, Algeciras, Marsaxlokk and Damietta in Europe).
- Infrastructure able to accommodate the large mother vessels.

Two other factors may come into play:

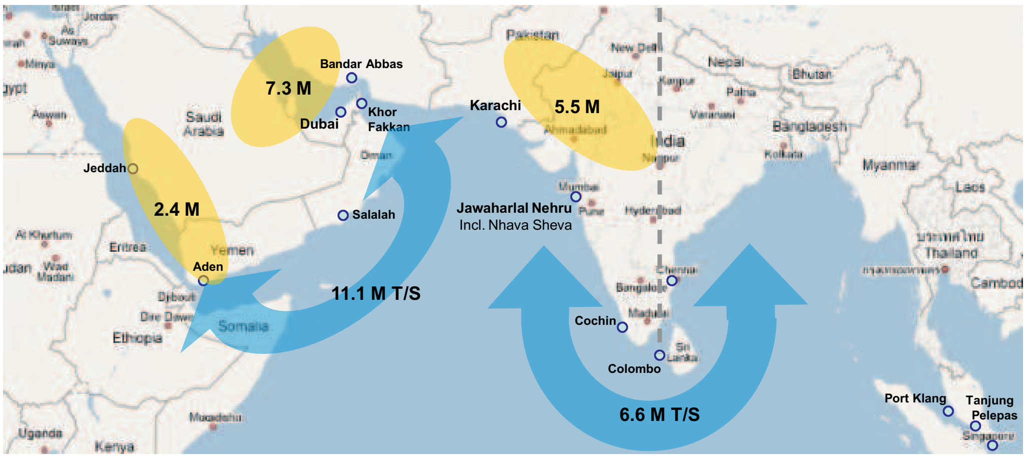
Shipping lines may look for dedicated terminals, as opposed to common user

- The cargo volumes were not high enough to entice shipping lines to divert from the main deep-sea trunk routes between the Far East and Europe/US.
- Shipping lines were unwilling to call at ISC ports that were state monopolies and where handling speeds were very low, at less than 200 TEU per day.

Consequently, most of the containers were carried to and from Indian ports by feeders, mainly from Colombo, Singapore and Dubai. Only the Shipping Corporation of India (SCI) called directly on the deep-sea routes. During this period India had to bear the cost of feeders. The World Bank's "India Ports Sector Strategy Report" of 1993 had estimated that the use of feeders rather than direct services at Bombay cost the Indian economy about $500 per TEU.

The move to direct calls started around 1996. Traffic volumes were increasing rapidly, and ships started to call directly at Nhava Sheva, which had been built in 1989, but had remained fairly empty for several years. The second breakthrough was the setting up of private container terminals at Indian ports, initially Nhava Sheva at JNPT, which handles a significant portion of India's containers.

Middle East & West Indian Sub-continent Region – Transhipment Market, 2007 (Million TEU)



Source: GHK

Figure 1

Major Container Port | 5.0 M Cargo base – transhipped counted as only one TEU | 11.1 M T/S Transhipment

These terminals have now been joined by others that have been concessioned out to private operators, including: Tuticorn (PSA in 1999); Chennai (P&O Ports (now DPW) in 2001); Mundra (which started private operation under P&O Ports in 2003); JNPT III (Maersk/Concor) in 2006 and others.

The much faster ship turnarounds at the private terminals accelerated the move to direct calls. All the private terminals have specialised equipment and infrastructure, and efficient operators. However, several have lacked adequate depths to benefit from economies of size.

By 2008 only about 8 per cent of Nhava Sheva traffic was in feeders – the rest being direct services. However, outside Nhava Sheva, the vast majority of containers still come in feeders. Perhaps as much of 40% of India's total container traffic is still transhipped at other countries' ports, primarily Colombo and Singapore. In 2007,

Main Hub Ports' Share Of Indian Container Transhipment Traffic 2007

Singapore	40%
Dubai	17%
Colombo	31%
Salalah	5%
Klang	7%
Total	100%

Notes: Based on Indian Ports Association which cover only some of the ports and the hubs they used, and therefore should be regarded only as a guide.

Indian Ports Association (IPA) statistics suggest that the main hub-ports' shares of Indian traffic were broadly as shown in the Table below.

Future Scenarios for West Coast?

The 'regional' transshipment market consists of approximately 11.1 million TEU of transshipment in the Middle East and about 6.6 million TEU of transshipment into and out of the ISC (Figure 1). However, despite container traffic volumes of about 5.5 million TEU on the west coast of India and Pakistan there is still very little transshipment at Indian ports.

This is in strong contrast with the Middle East where the major shipping lines have diverted mother ships off the trunk routes and the UAE ports have undertaken a lot of transshipment to the smaller Middle East ports since the 1980s.

Lack of adequate draft has been a key constraint to ISC ports competing in this regional transshipment market. No ISC container ports had drafts of more than 12 metres, however this is changing - at Nhava Sheva, Cochin and in Pakistan (Karachi) - and this should open up new possibilities.

After the ISC gets 14-18 metre ports, will the lines then:

- Divert big ships north to use ISC ports as hubs, or will they
- Continue with direct services to Nhava Sheva as at present, using bigger ships, say, 6-8,000 TEU?

> *"The 'regional' transshipment market consists of approximately 11.1 million TEU of transshipment in the Middle East and about 6.6 million TEU of transshipment into and out of the ISC."*

However, another possible reason for there being no transshipment from Indian ports is a lack of places to feed to and from. Nhava Sheva handles a large part of India's total traffic, and Karachi and Qasim handle all of Pakistan's traffic. Also a large part of both sets of traffic goes inland, much of it over distances of 1,200-1,800 km, rather than going down the coast. The places to tranship to may be limited.

However, a diversion off the main trunk route between Aden and Colombo to Nhava Sheva (500 nautical miles) would not be expensive or time-consuming. It would take only one day's sailing. This is less than the diversion to Dubai (1,292 nautical miles).

If the lines do opt for an ISC hub, which port would they use? An Indian port seems the most likely option, as India has most traffic and therefore minimises the costs of feeding. However, 14 metres at Nhava Sheva may not be deep enough for a mother ship after 2010. If cabotage reservations remain in place at Indian ports, their attractiveness as hubs will be severely reduced. The reservations have lasted a long time and there is little sign of change.

> *In terms of developing 'transshipment ports' the focus is on pulling in domestic feeders and, non-India related cargo for transshipment at an Indian port.*

It's Double the Volume but Not Double the Revenue

Despite these constraints, the use of Indian ports as hubs is being promoted by the ports and the government (rather than the shipping lines). The government has been concerned about Indian containers feedering from Colombo and Singapore, and has therefore favoured setting up competing transshipment hubs in India.

However, the concept does not transplant well to India. Feeder services along a coastline are quite rare. In most countries where reasonable roads and railways exist they are used. Feeders almost always serve routes where there is no realistic land transport option. It should also be emphasised that the volumes that could be transhipped to smaller ports within India are not as great as might be expected.

Similarly, the market for the proposed hub port at Cochin is not immediately apparent. Its main objective is to attract traffic away from Colombo, but the main Indian ports served by Colombo have been, in descending order of transshipment volumes, Tuticorin, Chennai and Cochin itself. Cochin cannot of course feed itself and Chennai and Tuticorin would not be well-located to use a hub at Cochin unless the Sethusamudran Canal between India and Sri Lanka were constructed.

In addition, one needs to clarify what is actually entailed when proposing a "hub port" to capture Indian cargo that is currently feedering at other countries' terminals. This Indian related cargo cannot "return" to Indian ports since it is already handled at Indian ports – Cochin cannot feed itself. For this type of cargo, the change is simply upgrading a feeder service to a direct service (which has already happened at several ports, including Nhava Sheva).

There is no change in the throughput count at the respective Indian port when this happens, although there will be a likely increase in revenue for that port. There will also be a corresponding loss (x2) in the throughput count at the transshipment port which previously handled this cargo.

In terms of developing "transshipment ports" the focus is really about pulling in domestic feeders and, more importantly, non India related cargo for transshipment at an Indian port. As indicated by the discussions above, the potential for developing this business at ISC ports may be limited.

It should also be remembered that this is a typically foot-loose and lower revenue market. Chasing this business can be a risky proposition: cargo is double counted - good for your headline numbers - but revenue is not. Rates per lift can be extremely low. At Colombo, whilst charges for the captive OD cargo are more commercial, transshipment rates are as low as USD60-70 per double move, i.e. less than USD30-35 per lift.

As a top-up to the more profitable OD cargo, the ability to compete for transshipment can be a welcome additional source of competitiveness for a port. However, across Asia significant funds (often public sector) are being committed to develop transshipment hubs.

Constructing substantial new terminal capacity primarily to chase foot-loose transshipment can be a risky proposition, as certain Governments and Port Authorities have found to their cost. MG

Strategic Location

- Located in the Rajpuri Creek on the West Coast of India
- Positioned on International Shipping Routes
- 42 Nautical miles South of Mumbai
- 160 kms from Mumbai by road
- 42 kms off NH 17 and the Rail Network
- Identified node on DMIC & DFC

Connectivity

Immediate Hinterland
Roha, Khopoli, Mahad, Patalganga, Nagothane,
Navi Mumbai, Mumbai, Thane-Belapur, Nasik, Pune

Secondary Hinterland
Goa, Madhya Pradesh, Gujarat and the land locked
States of North India

By Road
Northern Shore SH 96, SH 92 and SH 90
Southern Shore SH 97 and SH 98

By Rail
Connectivity - Northern and Southern bank
Proposed Alignment: Agardanda - Indapur - Mangaon

Development Potential & Berths Planned

Phase I - 5 Berths :

- 4 Multipurpose Berths, 1 Ro Ro Terminal
- Capacity to handle 30 million tonnes
- Dedicated Approach Channel with a depth of 14.5 m chart datum
- Extensive land bank for development
- Waterfront encompassing Northern and Southern Banks

SEZ & FTWZ

Port based multi-product SEZ inclusive of FTWZ
Dedicated world-class infrastructure for warehousing & logistics
State of the art cargo handling equipment transportation & support infrastructure facilities

Cargo Potential

- Containers
- Steel
- Automobiles / Automobile Components
- LNG
- POL
- Minerals
- Coal
- Chemicals
- Fertilizers
- Cement
- Iron Ore
- Edible Oil, etc…

An Integrated Infrastructure Initiative

A: New Excelsior Building, 6th Floor, A.K.Nayak Marg, Fort, Mumbai - 400 001 (INDIA)
T: +91 22 22074824 / 25 ; F: +91 22 22072124 ; E: info@balaji.co.in ; W: www.balaji.co.in

Direct Taxes Code
Impact on FSCs

Girish Mistry (girish.mistry@in.pwc.com) is an Executive Director, Tax and Regulatory Services in PricewaterhouseCoopers Private Limited and is based in Mumbai. He is a member of the Institute of Chartered Accountants of India and has been in the field of direct tax consulting practice over the last 20 years. He specialises in providing advice on domestic and cross border tax issues to large Indian and multinational corporations.

Nikhil Rohera (nikhil.rohera@in.pwc.com) is an Associate Director in the Direct Tax & Regulatory Services stream of PWC, Mumbai. He carries an extensive experience in litigation practice across industries.

Recently, the Union Finance Minister unveiled the new Direct Taxes Code Bill, 2009 (new income-tax law), which will replace the five decade-old Income-tax Act, 1961 ('IT Act'). The Direct Taxes Code Bill, 2009 ('Code') is proposed to be effective from Financial Year 2011-12.

The Code has proposed some extensive and far-reaching amendments to the Indian direct tax system. In this article, we will discuss certain specific provisions of Direct Taxes Code, 2009 which could impact Foreign Shipping Companies in India.

Tax Treaty override provisions

Section 258 of the Code provides that the provisions of the Tax Treaty or the Code, whichever is later in time, would prevail.

It is interesting to note that till date, India has already signed Tax Treaties with more than 75 countries. However, since, the Code would be enacted later in time, it appears that, at first instance, the provisions of the Code would override the provisions of all the Tax Treaties that have been entered into by India prior to April 1, 2011. However, it is expected that several Tax Treaties will be re-notified in the Code after April 1, 2011, so that the provisions of Tax Treaties have an overriding effect. Wherever, such notifications are not issued, the taxability would be governed solely under the Code due to above overriding provisions. In such cases, hardship could be faced by FSCs in India as they would be subject to income-tax in India.

Double Income-tax Relief Certificate

Shipping profits of FSC are generally taxable only in the state of residence / place of effective management and not in India under Tax Treaties.

Generally, shipping income of FSC's is not taxable in India under most Tax Treaties. In case, the Tax Treaty override provisions are enacted, this could result into denial of Tax Treaty benefits and, accordingly, FSCs would not be able to obtain DIT Relief Certificate from the tax office. As a result, FSCs would be governed by the provisions of the Code and subject to effective tax @ 2.72% (i.e. 7.5% of deemed freight * 36.25% effective tax rate) of their Indian freight collections.

Consequently, FSCs would be required to discharge the above tax liability every time their vessels touch Indian ports.

Non-availability of tax credit in residence country

To make situation worse, FSC may find it difficult to claim tax credit for Indian taxes in their home country, since many developed countries follow tonnage tax scheme under which credit or deduction for foreign tax may not be available.

Transportation charges

FSC are liable to tax on a presumptive basis under the Fourteenth Schedule of the Code. Accordingly, 7.5% of the 'transportation charges' on account of carriage of passengers, live-stock, mail or goods deemed to be income from the business of operation of ships.

Slot charter arrangements considered as business of operation of ships

The inclusion of arrangements in the nature of slot charter, space or joint charter within the ambit of 'transportation charges' is a significant proposal favoring FSCs. As such, income arising from such arrangements would be part of income from business of operation of ships of FSC.

Import freight

Under the provisions of section 44B of the IT Act, in case of import of cargo into India, no part of import freight is taxable, unless the import freight is received in India. The rationale for non-taxability is that under import transactions the activities are carried out mainly / wholly outside India.

However, there seems to be an anomaly in definition of 'transportation charges' under section 284(289) of the Code. Section 284(289)(a) seems to suggest that full import freight would be taxable in India, even if most of it is collected outside India. On the contrary, section 284(289)(b) seems to suggest that import freight would not be taxable in India, if collected outside India. As such, the said anomaly in the definition of 'transportation charges' could give rise to disputes and unsettle the already settled position in India for decades.

No concept of 'regular' vs. 'occasional' shipping business

Section 176 of the Code provide for various administrative compliances that are required to be complied by FSC viz. filing vessel-wise Port Clearance Certificate, filing of vessel voyage return, etc. The scope of this proposed section is similar to section 172 of the IT Act.

Under the existing IT Act, there is a clear distinction between 'occasional' shipping business and 'regular' shipping business of FSC. While, section 172 of the IT Act deals with computation of income of FSC engaged in 'occasional' shipping business, section 44B of the IT Act deal with computation of income of FSC engaged in 'regular' shipping business. However, no such distinction is made under section 176 of the Code.

Hitherto, the FSC engaged in 'regular' shipping business were claiming that the cumbersome procedural requirements laid down under section 172 of the IT Act should not be made applicable to them as they are governed by the provisions of section 44B of the IT Act. However, by eliminating the distinction between 'regular' and 'occasional' shipping business of FSC, the intention of the Government seems to be to treat both the categories of shipping business at par.

In order to eliminate hindrance to smooth operations, it would be more appropriate if a distinction continues to be made between 'occasional' and 'regular' shipping business, and FSC engaged in 'regular' shipping business be expressly exempt from onerous procedural requirements laid down under section 176 of the Code.

Computation of shipping income

Fourteenth Schedule of the Code, inter alia, provides for computation of shipping income of FSC on a presumptive basis. Rule 1 of the said schedule provides for computation of income of FSC from the business of operations of ships @ 7.5 per cent of transportation charges on account of carriage of passengers, live-stock, mail or goods. However, Rule 2 of the said schedule seems to suggest that income determined under Rule 1 would be further increased by an amount which is the difference between actual profits earned and 7.5% of transportation charges. In other words, Rule 2 seems to suggest a shift from presumptive basis of taxation to taxation based on actual profits earned by FSC, in case actual profits are higher than deemed profits of 7.5% of transportation charges.

It would be important to note that presumptive basis of taxation on shipping income of FSC exists under sections 44B and 172 of the IT Act. The presumptive basis of taxation was introduced with the belief that it was impossible for FSCs to compute their actual profits from Indian operations, given the typical nature of shipping business which involves vessels touching several foreign ports in one voyage. Therefore, with this background, in order to simplify and rationalise the assessments of FSCs, presumptive basis of taxation was introduced, under the IT Act.

As such, both, FSC and Tax Department have consistently accepted presumptive basis of taxation of shipping income as a rational basis for taxing income of FSCs. However, Rule 2, if enacted in its present form, could defeat the very purpose of the deeming provision and reinstate the earlier difficulties and needless issues in computing actual net profit of FSCs from Indian operation, which in any case is impossible to compute. This Rule requires a change to avoid future litigation.

The Code is a brave attempt of the Government to replace existing five decade old complex IT Act. Although, the stated objectives of the Code are simplicity and avoiding litigation, there can be no doubt that certain provisions of the Code concerning taxability of FSC in India need immediate clarification. MG

> *Clearly, taxing import freight, received outside India should not be the intention of legislature and suitable amendment is required to remove the aforesaid anomaly.*

Lead Logistics Providers
Leading the Fray

Jasjit Sethi (jasjit.sethi@tciscs.com) is the CEO of TCI SCS Supply Chain Solutions division of Group TCI, a Rs 15-billion conglomerate. TCI SCS offers supply chain management for key industry verticals of auto, retail & CP, telecom, cold chain, hi-tech, life science and healthcare. Jasjit is an MBA in Finance from Amity Business School and Bachelor of Science from Punjab University, Chandigarh. His interests are technology issues and he likes tinkering with new ideas and innovations.

Coping with the complexities of managing multiple service providers, organisations are increasingly looking towards Lead Logistics Providers (LLP) to fulfill their supply chain needs. Companies are customizing the concept of LLP for Indian supply chain scenario, which is scrambling out of the unorganised sector, and are effectively poised to provide optimum solution by untangling the supply chain web.

"Outsourcing" has been the trend of the past decade. Indian companies also followed their western counterparts in outsourcing all their non – core functions, to get benefits such as increasing shareholder value, reducing costs, improving operations, overcoming lack of internal capabilities, gaining competitive advantage, improving capabilities, increasing sales, improving service, reducing inventory, increasing inventory velocity and turns, improving cash flow, turning fixed costs into variable costs and other such benefits.

Reaping benefits from outsourcing traditional logistics activities like outbound and inbound logistics, custom clearance, the new generation of companies are looking to outsource nontraditional activities such as reverse logistics, labeling, kitting, packing, order processing etc. But owing to the complexities in India, highly fragmented logistics service industry and concern about the service providers' capability, the companies have partnered with number of different service providers in different locations. Consequently many 3PL relations evolved forming isolated blocks of outsourcing rather than a comprehensive responsibility of a single entity. This has introduced a new challenge of controlling the service providers, maintaining KPIs for each, tackling the daily issues etc.

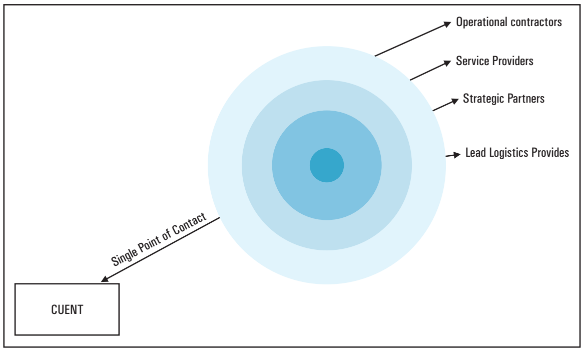
The above challenges have led to the emergence of Lead Logistics Providers (LLP). The LLP represents a hybrid approach combining the 3PL's operational knowledge and the 4PL's management only acumen. LLP acts as a single interface between the company and the multiple logistics service providers. The role of an LLP includes execution of logistics activities directly or through 3PL service providers. Other than being a single point of contact, they possess - knowledge of logistics to obtain most efficient and effective solutions, have manpower resources of higher quality to supervise vendors and ensure continuous process improvements and, above, all an IT base to network customer systems. LLPs functions as a part of customer and focuses the complete supply chain strategy rather than focusing on a small chunk of freight.

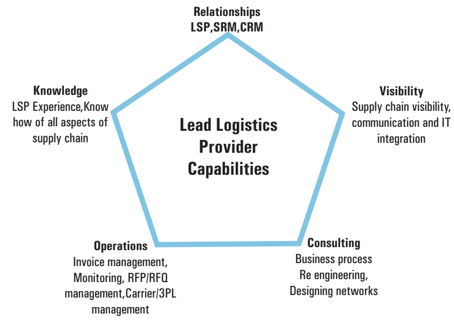
Benefits of LLP

Lead Logistics providers gain out of both 3PL and 4PL concept. A client-LLP relation concentrates logistics performance responsibility in the hands of a single organization that has the duty to provide high service at low cost. A true Lead Logistics Provider builds a set of activities focused around a definite set of supply chain initiatives and goals, generally with the following attributes:

- LLP Common Services - invoice management, warehouse/distribution facilities, etc.
- Implementation Center - the business process analysis, and development of all activities into an open systems framework
- Product & Skill Centers - supply chain engineering
- IT Enablement - IT selection for design and implementation
- Back Office Work - administration, quality, finance, legal, etc.

The above functions are managed by a controlling interface, monitored by LLPs like





TCI Supply Chain Solutions. All the issues related to daily business are managed by this group. The controlling interface would provide the control, visibility, KPI/Metrics management, reporting, daily problem solving and other such services.

LLPs act as complete supply chain orchestrators managing all the supply chain business processes of the company. They leverage the capabilities of 3PLs, technology service providers, and business process consultants to provide organizations with greater cross- functional integration and broader operational autonomy.

An LLP adds value through:

Reducing Total Cost of Ownership of various logistics assets by continuous cost reduction initiatives

- Managing performance of logistic service providers by synchronising processes and establishing standardised solution
- Establishing strategic alliances with distributors and suppliers by integrating systems and processes
- Leveraging know how from the previous experiences, to synchronise inbound and outbound logistics
- Using IT and other logistics tools to ensure smooth and efficient flow of information throughout the supply chain
- Managing risk to ensure effective management of all potential risks throughout the supply chain

Typically, 3PL duties include picking up goods, delivering them, storing them, picking the order and shipping the required quantity through the carrier specified. In warehousing, including storage locations, picking strategy, and labour planning are the only planning processes in which 3PLs are involved. But in the current volatile economy when various reforms and policies are in the offing, companies need to build flexible supply chains in order to gain maximum efficiency out of it. LLPs offer consulting services to respond to the complicated needs of today's clients and their needs to deliver comprehensive supply chain solutions that are focused on all elements of supply chain management, tailored to their specific needs.

Optimising the supply chain is a common first step when an LLP begins a new alliance with a company. Managing relationships and infrastructure, standardising metrics for reporting and pushing innovations through best practices then follow. MG

Description of a Lead Logistics Provider

A Lead Logistics Provider is required by a company having a vast presence and that has a huge network of service providers dedicated for each region. Each service provider has its own set of KPIs and contractual norms. With the expansion mode, it requires an LLP to be a single point of contact for all outsourced services.

Roles and Responsibilities

- Responsible for managing the entire network of 3PLs and other logistics service providers working with the company. The LLP will be a one stop shop for the company for its logistics management needs.
- Selecting, monitoring and reporting on the performance of LSPs. Maintain a single set of KPIs that provides visibility of the supply chain network.
- Integrating and managing the resources, capabilities, and technology with those of complementary service providers to deliver a comprehensive solution
- Planning changes in the logistics structure to reach the next level of efficiency.
- Recommending changes in the supply chain network to keep pace with the changes in the economy
- Use technology and logistics tools that provide real-time visibility to demand, inventory, and order status through a single portal

"An LLP needs to possess a comprehensive set of skills to effectively deliver an effective supply chain solution. It must also possess a large body of trained supply chain professionals, extensive capabilities and be able to manage multiple service providers."

3PL Market
Value Growth Ahead

Oscar de Bok is the Senior Vice President, South Asia & Indo-China, DHL Supply Chain. His primary focus is to drive profitable growth for DHL Supply Chain in the Asia Pacific region. He has extensive experience in the logistics industry, having spent the last 20 years accumulating sales, project management and M&A experience with shipping and transportation related companies, including seven years with DHL. Oscar joined DHL as a business manager with Nedlloyd (later acquired by Danzas) in 1992 and has moved up over the years; his most recent role prior to joining the team in Asia Pacific was Managing Director, DESC Nordic & Baltic.

GIVEN THE immense potential but yet the nascent stage of the 3PL industry is in India, it requires some serious investments in the form of quality infrastructure and human resources to tap the mammoth growing market.

India is a market with an enormous growth potential for 3PL activity for those who can bring in value for money services at modern standards. While it is true that this industry in India is still in its nascent stage, things look bright over the horizon. With more and more manufacturers realizing the need, 3PL market is expected to grow rapidly as a huge market waits to be tapped.

A major driver for the 3PL market will be the Goods and Services Tax (GST) introduced by the Government of India. GST will change the way supply chains are operated by most companies in the country. The advent of GST will bring upon the need to establish larger and more integrated warehousing operations and end to end solutions in the next few years. These, in turn, will require more advanced IT solutions, larger and enhanced infrastructures along with better trained staff – both blue and white collar. In this scenario, all those 3PL players who are willing and able to make such big investments will clearly take advantage of this growth potential.

DHL Supply Chain is one of those strong willed players in this domain who can bring in such investments. It is investing in India in people and infrastructure including transfer of knowledge, thereby providing greater efficiency to India's logistics market. It has a strong presence and expertise in the aftermarket and for inbound to manufacturing solutions.

Additionally, the company has been able to use best practices from all over the world with key players in the automotive industry as its main customers and bring those practices to the Indian market. For some customers in this industry we have already rolled out complete end-to-end solutions covering the whole of India in set ups that work both prior and after the GST. DHL is planning to expand this basket by offering multiuser environments to the auto industry so as to be flexible to fluctuating customers' costs and to provide opportunities for customer growth.

DHL has rolled out similar concepts in the consumer, retail and technology industries and is looking at expanding these set ups for the health care industry too. The latter being an industry that requires high quality level solutions and modern infrastructure that DHL Supply Chain can offer.

Thus, 3PL players who offer serious value offerings and at the same time bring in international service standards will lead this industry from the front in the coming years.

India is a key market in the Asia Pacific region for the multinational logistics giants and throws open various opportunities to maximise the potential that it offers to promote global trade. It is for the global players to seize and utilise them. MG

About Infyz

Headquartered in Hyderabad, India, Infyz has extensive experience in implementing state-of-the-art terminal management systems for leading terminals across Asia, Middle East, Europe and America. We are focused on providing Software services and products for Ocean Shipping, Port & Terminal Operations.

Why Infyz?

- We have a deep understanding of how ports operate in a global environment.
- We understand how shipping line systems are deployed around the world in over 150 ports across five continents.
- We develop EDI Integration (B2B & A2A) with major car manufacturers, customs, ports and shipping lines.

Our services: Ports, Shipping & Logistics Domain Professional Services (Consulting)

- Project Management Services
- Architect Services
- Development Services
- EDI & Integration Services, Software assessment/acquisition
- Customized Software development
- Application Maintenance and Support

Our expertise: Extensive implementation experience

The consultants of Infyz have extensive experience in implementing state of-the-art Terminal Operations Management Systems for several large international terminals across countries including:

- Project Management for Implementation of Terminal Management System in,
  - Port of Southampton (UK)
  - Port of Zeebrugge (Belgium)
  - Port of Baltimore (USA)
- Participated in business requirements and Solution design for Kotka Euro Terminal (Finland).

These implementations were successful and involved procuring, selecting and customization of terminal operations management software to meet individual user requirements.

Product for Ports:
Infyz - Terminal Operations Management System (i-TOMS)

Infyz - Terminal Operations Management System (i-TOMS) is a fully web based application for managing port operations. It has several modules for managing Vessel operations, Cargo operations (import and export), Yard Planning, Scanning, Resource Management, reporting, integration and EDI capabilities with in-house and third party systems. The product will be ready for deployment by December 2009 after extensive testing and will offer a very cost effective solution to ports and terminal operators.

Infyz Solutions Pvt. Ltd.,
19 Arora Colony, Road No 3, Banjara Hills, Hyderabad-500 034, India.
Tel: +91 40 4221 5297, Mobile: +91 99894 89437
srinivas.ramireddy@infyz.com
www.infyz.com

Infyz
Quality is our Passion

Major Happenings in the Maritime Sector

India Voyage 2009

Here's a quick look at the moves, shakes and brakes of the year that was!

January

Chennai Port Trust started work on its crucial connectivity link – a 19-km road flyover between the port and Madhuravayal on the outskirts of the city.

Arshiya International received formal approval from the Board of Approvals of Special Economic Zones for setting up a Free Trade Warehousing Zone at Mumbai.

Chemoil Adani, a joint venture between Chemoil and Adani Enterprises started supplying marine fuel (bunkers) in India.

Paradip Port inaugurated its new dry dock built at a cost of Rs.18.5 crore.

Ministry of Railways announced its plans to build a few mega multimodal logistics parks with state-of-the-art integrated logistics facilities.

February

Gateway Terminals India Pvt. Ltd. added two new quay cranes increasing the total count to 10.

Ministry of Shipping urged the Ministry of Finance to provide a line of credit of Rs. 10,000 crore to the industry in the wake of appeals made by the shipping companies.

Former Minister of Commerce & Industry Kamal Nath announced a special package of Rs.325 crore for the help the textile and leather industries which were badly affected by the recession in the West.

Ministry of Finance announced to clear the outstanding subsidy to the shipbuilding industry for the orders that were confirmed before August 14, 2007.

3i India Infrastructure Fund picked up a minority stake in Krishnapatnam Port Company Ltd. which operates the Krishnapatnam port in Southern Andhra Pradesh.

Maersk Line successfully completed 100 calls of the MECL 2 service at Chennai.

March

Shreyas Shipping, with its vessel OEL Victory, joined the Indian Flag Alliance that caters to the feedering requirements of both exim and domestic trade along the Indian coast.

Government of India allowed foreign flagged cruise vessels to call more than one port in India.

DHL launched its weekly Direct LCL Consol service connecting Chennai to Felixstowe.

Safeexpress Pvt. Ltd. launched its state-of-the-art logistics park in Gurgaon in an area of 1,95,000 sq.ft.

April

Caravel Logistics got license to charter a foreign flagged vessel to operate on coastal routes. This comes after the Indian National Ship Owners Association gave no objection certificate to Caravel.

CONCOR signed a joint venture agreement with NYK Line to set up a company to provide end-to-end car transportation services to automobile manufacturers with focus on rail-based transportation.

Kandla Port once again emerged as numero uno in throughput volumes handled by major ports in 2008-09.

Mundra became the first port in the country to handle Hi-cube double-stack container trains that can carry 180 TEU in one rake.

Gujarat Pipavav Port Ltd. added two post panamax cranes increasing its count of RMQCs to 8.

May

Work on Offshore Container Terminal Project off Mumbai Port begins. The Rs. 1,228 crore terminal is likely to be completed by end of 2010.

Karaikal Port received its first vessel MV Da Fu carrying project cargo from Germany.

Arshiya International Ltd. received formal notification by the Ministry of Commerce and Industries stating its FTWZ at Panvel near Mumbai has been gazette as deemed foreign territory.

US moves WTO against India's boric acid import policy.

Cochin Shipyard awarded a dredging contract to Meka Dredging-Amma Lines JV for a period of 4 years.

Baltic Dry Index, a measure of shipping costs for commodities, rises 18 per cent in late May surpassing 3000 points since October 2008.

June

Reliance Power plans to buy six bulk carriers to transport coal to its upcoming power stations across the country.

India bans import of Chinese mobiles.

Minister of Shipping G K Vasan triggers 100 days action plan.

DP World appoints Capt. Anil Singh as Sr. Vice President and Managing Director of DP World Subcontinent.

Lanco Infratech Ltd. withdrew from the proposed Vizhinjam international container transshipment terminal (ICTT) due to prolonged delays in bidding process. Lanco was selected as the successful bidder by the Kerala Government in May 2008.

July

Union Budget 2009-10 announced.

Government of India approved Cruise Shipping Policy.

Ministry of Shipping announced the proposal to introduce a regulator for major ports through Major Ports Regulatory Authority Act 2009.

Government of India proposed to waive the stamp duty for developers of special economic zones (SEZs) on land purchases within the notified area for non-core activities.

Union Textiles Minister Dayanidhi Maran led the first-ever joint trade delegation of the textile sector to Japan on July 20 comprising representatives of the Apparel Export Promotion Council (AEPC), the Cotton Textiles Export Promotion Council (Texprocil), the Synthetic and Rayon Textiles Export Promotion Council (SRTEPC), Knitwear Technology Mission, and leading textile manufacturers and exporters from Tirupur and Coimbatore textile clusters.

Cochin Port Trust (CoPT) floated tender inviting bids for the setting up of a multi-user liquid terminal at Puthuvypeen. The terminal is proposed to be used for bunkering facility and handling liquid cargo, including liquefied petroleum gas (LPG).

August

Government announced takeover of the Hindustan Shipyard in Visakhapatnam to build military vessels for the Indian Navy in a move underlining the urgency in upgrading defence capabilities.

Sical Logistics Ltd. signed a MoU with Japan's Mitsui OSK Lines Ltd. to operate the automotives management yard at Ennore Port.

The International Maritime Organisation (IMO) has called for interim guidelines on an energy-efficiency design index for new ships aimed at cutting carbon dioxide (CO2) emissions.

Minster of Commerce & Industry Anand Sharma announced a pro-exporter Foreign Trade Policy 2009-2014.

The BDI had its worst week since October last year following poor demand for shipments of coal and iron ore. It slid by 135 points, or 4.6 per cent, to 2,772 points.

Exports continued their decline for the tenth month in a row, yielding just $ 13.6 billion in July, as against $ 18.4 billion in July 2008, a decrease of 26.2 per cent.

Rail sidings in Krishnapatnam Port became fully operational. Handling capacity has increased to 4 rakes of iron ore unloading, 3 rakes of coal loading and 2 rakes of general cargo.

September

Sri Lanka offered India a proposal to renovate and rehabilitate parts of the strategically important Kankasanthurai harbour in Jaffna in the northern region of the country.

Mundra Port & SEZ Ltd. held talks with the Vietnamese government to set up a port in that country.

The Samsara Group has signed an agreement with Allied ICD Services Ltd (AISL) for issuing Bill of Lading from the inland container depot (ICD) at Durgapur as also for accepting cargo at the ICD.

Finance Ministry has exempted transportation of certain specified goods by rail or through inland waterways and coastal shipping from service tax. The goods exempted include foodgrains, edible oil, sugar, salt, fruits and vegetables, fertiliser and petroleum products.

Ennore Port Ltd. has become the first Major Port to hand over a dividend cheque for Rs 4.15 crore to the Union government.

October

Finance Ministry decides to continue with the anti-dumping duty on imports of sun/dust control polyester films from Taiwan and the UAE.

The Asian Development Bank (ADB) decides to offer a $ 100-million line of credit to the Export-Import Bank of India (Exim Bank). The Exim Bank would provide medium as well as long-term loans to export-oriented SMEs in Assam, Madhya Pradesh, Orissa and Uttar Pradesh.

Ministry of Environment and Forests orders all the new port projects in the country to be stopped until a comprehensive policy is framed.

Cochin Port Trust (CoPT) and the Inland Waterway Authority of India (IWAI) signed an MOU to operate ro ro/lo lo (roll on-roll off/lift on-lift off) barge services for transportation of containers between Willingdon and Vallarpadam Islands in Cochin Port.

Rani Jadhav, past chairperson of the Mumbai Port Trust (MbPT), took charge as the chairperson of the Tariff Authority for Major Ports (TAMP).

The Kerala government cleared Rs. 450 crore for work on the 'initial phase' of the Vizhinjam International Container Transhipment Terminal (ICTT) project. It includes ensuring rail and road connectivity, water supply and electricity.

Sical Logistics signed an agreement with the New Mangalore Port Trust to set up an iron ore handling facility.

Shipping Secretary A P V N Sarma superannuated at the end of October.

November

Deccan 360, a company that offers a low-cost express cargo solutions pioneered by Capt. Gopinath, was launched. This is expected to revolutionise express cargo industry. It provides services to 17 major and minor cities and towns with 3 Airbus A310s and 7 smaller ATRs.

Atanu Chakraborty, CEO of Gujarat Maritime Board, transferred to the Finance Department as Secretary, in a major reshuffle of the state's IAS and IPS officers. Pankaj Kumar, Joint Managing Director of Sardar Sarovar Nigam, replaces him as the new Vice-Chairman and Chief Executive Officer.

Allcargo Global Logistics Ltd. commenced Third Party Logistics (3PL) division to add value to supply chain logistics.

K Mohandas takes charge as the new Secretary of Shipping. An IAS officer of 1974 batch, he was earlier posted as the Secretary in the Ministry of Overseas Indian Affairs.

December

Kolkata Port Trust (KoPT) terminated the lease agreement with the Navy for about 50 acres on the waterfront at Haldia Dock.

ABG Shipyard sold 8.27 per cent stake in Great Offshore, almost its entire holding in the company. The stake was bought after the firm made its counter-bid to acquire 32 per cent stake in Great Offshore.

Aryan Cargo Express, a dedicated cargo airline, begins scheduled cargo airline operations and will later go international. MG

(The list is not exhaustive)

Maritime Nations

Crucial Period Ahead

Photo courtesy: Port of Tanjung Pelepas

During the 1990s, maritime trade has flourished driving the shipping industry to new heights. It was only during the financial crisis of 2008 and 2009 that the shipping industry came grinding to a halt. The global maritime industry is reeling from the effects of recession. What was once a boom industry is now facing its greatest ever crisis. In an industry dependent on long-term planning, acute economic crisis can be shattering not only for shipping firms but the industries associated with it. Despite signs of stability in world trade, the global shipping industry seems to be heading for the rocks as a result of an oversupply of new ships, low shipping rates and feeble demand for goods across the world.

A Maritime Gateway Report with inputs from
Sadhana & Raunek Kantharia

ACCORDING TO business executives and analysts, though the green shoots of recovery have started appearing, the shipping industry is unlikely to emerge from the deep slump for the next two or three years. According to WTO data, international trade decreased year-on-year by 17 per cent from January to September 2009, while imports and exports fell 20 per cent in the US and Europe, 50 per cent in Japan, 30 per cent in South Korea and 20 per cent in China.

“There has been almost no ordering of new ships since September 2008. There can now be no doubt that the order book for new ships is shrinking through cancellations and deferral and the peak of expected deliveries in the next two years is flattening as cancellations and delays in deliveries are negotiated,” Lloyd's Register Group wrote in its 2008/09 financial report released in October 2009.

ASIA GROWTH

The flourishing shipping industry of Asia has received a considerable amount of attention mainly because of its consistent growth even when the maritime industry in several other parts of the world is trying hard to come to terms with the on-going financial crises. Survey statistics reveal that almost 40 per cent of global shipping tonnage is owned and controlled by Asian interest and Asian ship building industry contributes to almost 60 per cent of the global market share. Moreover, over 80 per cent of the ships in the world are built in the three major ship building countries – Korea, Japan and China, and more than half of the ships around the globe are crewed with Philippinos, Indians and other Asian seafarers. The present favorable condition of the Asian shipping industry is a product of the combined efforts of a group of Asian countries working with a unanimous goal.

China is one of the biggest shipbuilding industries in the world, has been the buzzing epicenter of maritime activities in Asia. Being the fastest developing country in world, it holds a promising future prospect not only for Asia but for the whole world. China's forte – advanced technology blended with cheap labour – has incited the shifting of the global shipbuilding center to itself. Moreover, the substantive 11th five year plan of the Chinese government is doing wonders to the flourishing shipbuilding industry, creating brand new opportunities and boosting the strength of the industry. The Chinese government has left no stones unturned by investing on large scale in the shipbuilding industry with the sole purpose of making China the biggest shipbuilding country by 2015, accounting to 35% of the World's shipbuilding market.

China's current booming economy is also the outcome of its ever increasing external trade, a prime factor for inflating the maritime cargo volume not only of China but of the whole world. A survey report showed that the increment in the volume of solid bulk maritime cargo of China contributed to more than 80% of the global increment. For the last few years, Shanghai port of China has been handling a record number of cargo and containers, keeping itself ahead in the ranking of the cargo ports around the world. It is expected that by 2010, the number of containers handled will reach as high as 30 million.

However, though China has been the forerunner in bringing the Asian Maritime Industry to limelight, the current acquired condition of the industry has not been a solo effort, but an outcome of a team comprising of several prominent Asian Countries. Philippines, predicted to be Asia's next maritime hub has been a close follower to China and other prominent Asian countries in terms of activities related to shipping. Philippines seamen, one of the few prominent factors that have played an important role in putting Philippines on the maritime map, are renowned all over the world for their skills and hardworking quality. Moreover, Philippines recently joined the bandwagon comprising of prominent Asian shipbuilding and ship breaking countries that has served as a great boost to its Shipping industry.

The Philippines government has also laid down plans for brining its maritime industry into global focus. The government has planned to use its prime strength – maritime manpower, for this purpose by setting up training centers and up grading the certification process for competency. Also, development of new waterways, introduction of renewed mandatory ship retirement/ replacement program, promotion of Philippine- flag ships and development of new financing windows for shipping are few of the implemented plans that are further strengthening the position of the country's maritime industry at a global level.

Singapore, one of the world's busiest ports for the last two decades in terms of shipping tonnage, is also a world-class port with soundest facilities. The maritime industry of Singapore contributes 7 per cent of its GDP and provides employment for over 100,000 people. Singapore, strategically located at the confluence of the world's key shipping and trading routes, apart from being a premier maritime hub, is also emerging as the prime location for maritime arbitration for the region. Handing over 40 per cent of world's shipping tonnage, Singapore is today a home to several reputed container operators, prominent ship management firms, and thriving offshore marine engineering and petrochemical companies.

Moreover in order to turn Singapore into an international maritime hub, the maritime and port authority of Singapore, along with the government, is trying hard to prevent the maritime industry from coming under the scanner of the current global economic slowdown and financial malaise. Various initiatives taken by the government are not only benefiting the operators in this rough time but also getting rid of any signs of economic crises. Some initiatives include several cost assistance programs such as slashing down the port dues and extension of the port due waiver scheme. Moreover, a fund known as the Maritime Cluster Fund (MCF) has been set up in 2002 to promote the maritime cluster in Singapore, benefiting the new maritime ventures planning to set up in Singapore and helping the existing maritime companies to expand into new lines of business. Apart from this, there has been a substantial investment made by the government in research and development.

Maritime Innovation and Technology Fund, which was set up in 2003, assists in the development of new strategic R&D areas such as maritime telecommunication, port operation, maritime environment and clean energy. Also, an Approved International Shipping Scheme (ISA), along with the Maritime Outlook Network (MaritimeONE), an initiative of the Association of Singapore Marine Industries and Singapore Shipping Association are also playing a significant role in implementing manpower development initiatives for creating an awareness of Singapore's dynamic and diversified maritime sector among the youth and attract quality manpower into the industry.

Korea is one more important player that has played a significant role in the growth of maritime industry of Asia. The shipping industry of Korea creates 25% of the GDP and 99.7% of the country's total export and import depends on marine transportation. In spite of the looming financial slowdown, the Korean Shipping Industry is trying hard to keep up its position in terms of world shipbuilding market share. The Korean Ministry is making endless efforts to keep the maritime sector abreast with the new technologies and methods in IT and Shipbuilding domains. Last year, Korea shipbuilders contributed 50.6 percent of the global market share, which included a high number of massive VLCC orders.

In order to ensure smooth flows of International trade, the Korean Government has taken initiatives to participate in the activities of international organizations and various private institutions around the world. Moreover, the Government has also introduced advanced shipping regimes including 'the Ship Investment Company System' and 'the Tonnage Tax Scheme' following 'the Jeju Ship Registry' in a bid to make Korea one of the best places for shipping business in the world.

Japan, last but not the least, is also one of the biggest ship building countries in the world and is seeing a boom of unprecedented scale in its maritime industry. Around 25 per cent of world's shipbuilding work is handled by Japan. This has been possible because of two important factors – Easy availability of steel and cheap labor and its infatuation towards technology. Japan is the home to some of the world's most famous engineering companies such as Mitsubishi and Kawasaki. Moreover, the consistently growing foreign trade of Japan is also of the prime factor behind its flourishing maritime industry. Recently, though Japan has lost a substantial share of business to its competitors, its sophisticated shipbuilding facilities and innovative R & D results are still attracting a good amount of business to the country.

AFRICA MARITIME

Though many countries in Europe and Asia are developing aggressive policies to promote their maritime industries and have enacted measures such as tax incentives, direct subsidies and ship financing schemes to benefit ship owners, Africa is moving towards a harmonised maritime transport charter following the adoption of the African Maritime Transport Charter at the Second African Union Conference of Ministers. The shipping industry is considered to be a catalyst for economic development facilitating a majority of world trade.

The maritime transport sector in Africa is a giant that is waking up. Minister of State for Maritime Transport of the Federal Republic of Nigeria, Mallam Mohammed Habibu Aliyu, at the first African Union Conference of Ministers held in 2007, highlighted the persistent underdevelopment of the African maritime sector which he described as the greatest challenge to the economic growth of Africa. The inadequacy in port infrastructure hinders port development and the African ports are unable to keep up with the pace of growth.

Most of the African countries have adopted the newly launched maritime transport charter to strengthen cooperation, inland waterways navigation and ports. In Africa, the maritime sector is propelled by South Africa towards world-class shipping and maritime trade standards.

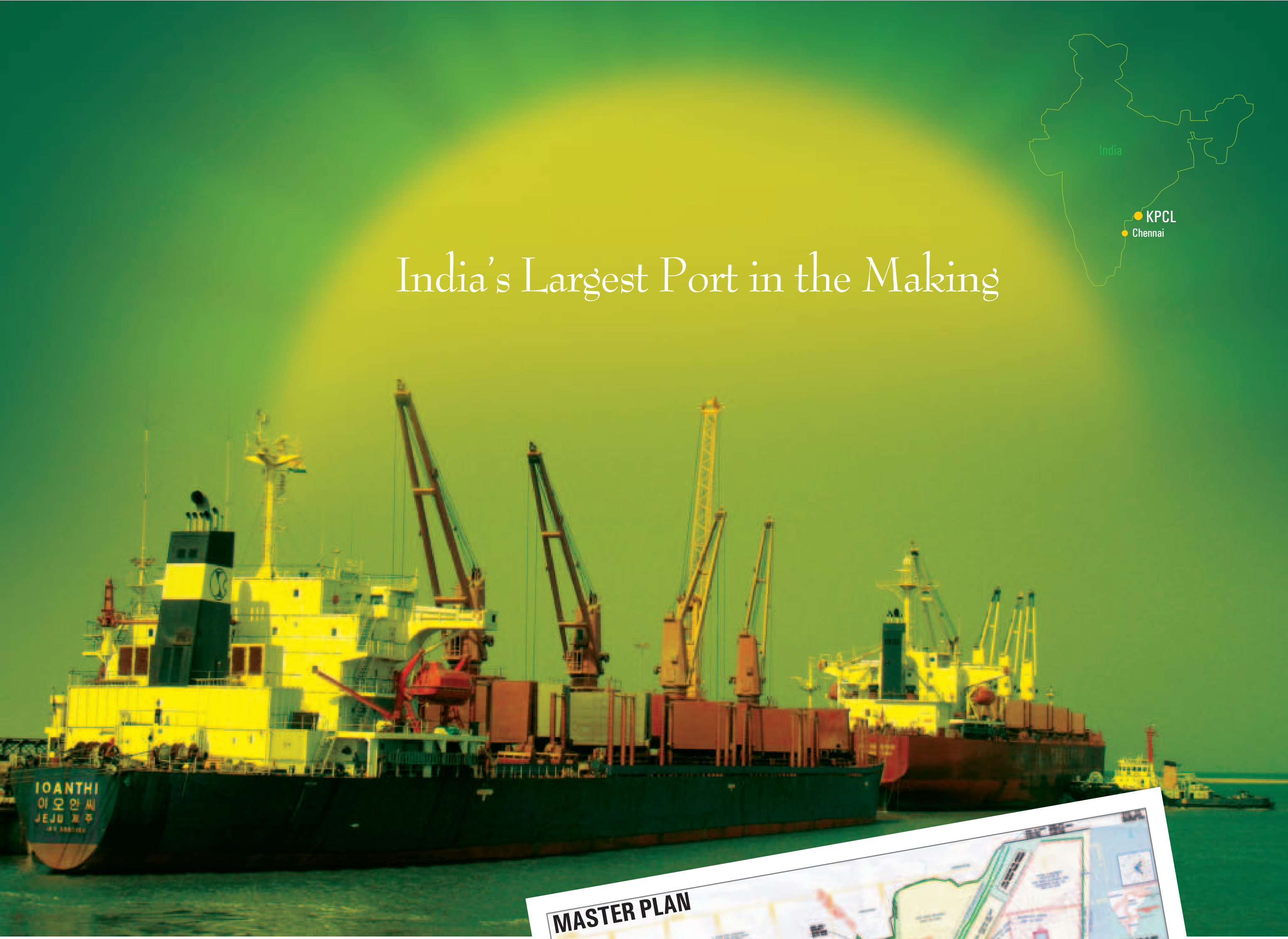
Challenges

There are two clear challenges that face the African Maritime transport sector. The first is safety and security and the other is the economic development of the maritime sector. All these issues of safety and security call upon the government to develop a coordinated and integrated and continent-wide transport safety programme cutting across all modes. Africa has learnt that one of the quickest ways in which the country's economy can grow is through the implementation of cabotage as an instrument for the development of the maritime transport sector. Cabotage is defined as trade transit of a vessel along the coast from one port to another within the territorial limits of a single nation.

Development

The major areas of development include developing Africa's capacity in the area of maritime and port administration, promoting integration of women in maritime, ensuring security of ships and ports, preventing illegal dumping of waste, establishing and developing regional Coast Guard networks, improving port management and operations, facilitating access to and from sea and freedom of transit for land-locked and island states and facilitating creation of African ship registries and implementation of the Charter.

The government is also spearheading a drive to arrest the decline of the country's shipping register, foster the growth of a local maritime industry and boost SA's position as an international maritime centre.



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The fastest growing sector in maritime transport namely containerised liner shipping has been growing at a fast pace during the last two decades. With annual growth rates of over 10 per cent, container traffic is today estimated to account for more than 70 per cent of international seaborne trade by cargo value.

AUSTRALIA

Around 99 per cent of Australia's international trade is carried on by sea and Australian ports play a pivotal role to the economic future. The Australian marine industry is a significant industry as well as a major service provider to other industries and a major contributor to the wealth of the nation through both manufactured products and services. Australia's marine industry consists of shipbuilders, boat builders, repairers, retailers of marine products, marina service providers, marine equipment manufacturers, super yacht construction and services and many related activities.

The 2008 recession has hit many shipping companies in Australia too. Shipping companies do not believe this will be a short and sharp recession, according to a survey of transport businesses by international legal practice Norton Rose Group. Ports in key countries need to operate efficiently and be properly structured in order to support an increase in trade and GDP by linking countries, both coastal and landlocked, productive hinterlands and consumers to global markets.

The major focus of Shipping Australia, as a peak industry body, is both to promote and advance the interests of shipowners and shipping agents in all matters of shipping policy, environmentally sustainable practices and safe ship operations.

Prime Minister Rudd announced in May 2009 the development of a National Ports Strategy as a response to the Recommendation of the Inquiry into shipping policy entitled 'Rebuilding Australia's Coastal Shipping Industry', which proposed a national port development plan to address current and potential capacity constraints in Australia 's ports.

As part of a National Ports Strategy, two bodies, Infrastructure Australia and the National Transport Commission, were directed by the prime minister to jointly consider the incorporation of port planning and funding.


Photo courtesy: Port of Melbourne Corporation

Objectives

The main objectives include ensuring that users of shipping can access cost-effective shipping services, ensure that Australians operating in Australia's interstate and intrastate sea transport industry are subject to the same regulatory regime as that applied to foreign entities, ascertain that Australians can participate in the global shipping industry to the benefit of the Australian economy, check Australia's defence capability has access to a merchant navy, see to it that Australia's whole maritime infrastructure grows as a result of removal of anti-competitive regulatory constraints on Australian industry assure that the administration of the Australian interstate and intrastate sea transport industry is fair and not open to manipulation.

Strengths

Design capacity is an outstanding strength of the Australian shipbuilding industry followed by a reputation for quality in production. Australian designers and shipbuilders maintain a competitive edge in the export arena.

Containerships and roll-on, roll-off ferries, which are more than 50 years old, represent the two major technical developments to have had a significant effect on trades, cargoes, port facilities and surrounding infrastructure in the last decade.

The Australian Maritime Safety Authority is a largely self-funded government agency with the charter of enhancing efficiency in the delivery of safety and other services to the Australian maritime industry

Major Ports

Australia is home to five major general cargo ports, including the Port of Melbourne, Sydney,

Brisbane, Fremantle and Adelaide. These world-class ports play an active role in the economic growth of


Photo courtesy: Peet de Rouw

the country. Melbourne is home to the busiest seaport for containerised and general cargo in Australia. Located in Melbourne Victoria, the Port of Melbourne sits on the mouth of the Yarra river, which is at the head of Port Phillip Bay.

The Port of Melbourne handles more than $75 billion in trade every year and 39 per cent of the nation's container trade. The second largest container port namely Sydney port is 200 years old. Sydney is an economic powerhouse, handling more than $50 billion of international and domestic trade annually.

Another major Australian port is located 30 km from Perth at Fremantle, on the Western Coast of Australia.

The Port of Brisbane, located in Queensland, Australia's second largest state, is the only purpose-build, capital-city, intermodal port complex in Australia, The Port of Adelaide continues to enjoy a significant increase in trade activity with export booms in the shipment of grains, wine, motor vehicles and automotive components, ores and concentrates.

Performance

The annual global box port rankings, published by Cargo Systems, showed that Brisbane and Sydney were Australia's big movers. Based on 2008 calendar year results, the rankings confirm Melbourne as Australia's biggest container port with throughput of 2.3m TEU for the year although the port slipped one place to 52nd in the world.

From December 2008, Australia experienced a significant and sudden decline in most import and export categories, with the exception of bulk commodity exports where

Chinese demand has actually resulted in an increase in bulk commodity exports. Surprisingly, in volume terms, Australian exports increased 1.8 per cent in the six months to the March 2009 quarter.

The beginning of the recovery period has started. The shipping industry in the world is remote-controlled by China and if any changes are happening in China's freight operations that will be reflected in the world's shipping industry immediately.

As 80 per cent of world trade is conducted by sea, maritime trade remains an essential element of global economic growth.

Africa should take precautions to see that piracy does not bring the maritime trade to its knees. Australia has one of the largest maritime security challenges in the world due to the extent of its maritime domains and borders.

EUROPE UPDATE

As per media reports, Europe's economy emerged from the worst slump in more than six decades in the third quarter as governments stepped up spending and exports increased for the first time in one-and-a-half years.

A jump in inventories and exports drove the euro zone out of recession in the third quarter but falling investment and household consumption underlined concerns about the sustainability of the recovery. Economists say the continued weakness of consumer spending casts doubt on the recovery's sustainability. Marc Van Peel, chairman of Port of Antwerp, sees no recovery in sight. In an interview with an Indian national daility, he said "although we keep hearing a lot about recovery especially in the media, we don't witness recovery now." The good thing happening, according to him, is that the situation is stabilising and not worsening further.

- Inventory, exports, govt spending drove Q3 growth
- Weak domestic demand raises sustainability concerns
- Q3 exports rise despite stronger euro

Meanwhile, the Port of Antwerp is exploring business opportunities in

India and as part of it, is looking at setting up a greenfield port in Gujarat. Antwerp is urope's second largest port and fourth largest in the world.

In today's highly competitive global environment, Greece remains the first maritime country in the world, in terms of shipping weight and number of commercial vessels, says Louka T. Katseli, the Greek Minister of Economy, Competitiveness and Shipping. China on the other hand is the largest exporter in the world, both in kind and in volume, and the largest commercial partner to the European Union.

Greece became the first EU country to conclude, in 1996, a bilateral maritime agreement with China. This agreement, strengthened by the relevant EU-China Maritime Agreement of 2002, shows the willingness of both countries to continue to follow the principles of free and fair competition in international shipping.

Despite the global economic slowdown, a considerable, constantly increasing number of Greek vessels are delivered in Chinese shipyards. Greek ship owners are among the best clients of Chinese shipyards, the minister said at a Greece-China shipping cooperation meet recently.

Photo courtesy: Port of Los Angeles

US PREDICAMENT

The United States maritime industry is concerned with securing maritime cargo. Janet Napolitano, Chief of the department of homeland security, warns of critical vulnerabilities despite the port security having improved since the US terror attacks in 2001.

In an interview with *VOA News*, Napolitano noted a pilot programme at five foreign ports has uncovered difficulties in scanning all US-bound cargo. The current technology is unable to effectively and automatically detect suspicious cargo, saying it cannot see through dense freight. Many ports do not have a single point through which all cargo passes, making the scanning process far too slow, she says.

Since the country has an estimated 13 million small maritime vessels plying its waters, the US government is revising its small boat security strategy and expects the new plan will be completed in 2010.

Also, the US will not be able to meet a 2012 deadline for scanning all maritime cargo for nuclear devices and other weapons because of costs and inadequate technology, Janet adds.

The Government Accountability Office has found that efforts at ports in the pilot project have been hampered by equipment breakdowns, poor-quality scanning images and logistical difficulties of transferring containers to scanning areas.

The shipping industry in the United States operates through different divisions – foreign and domestic being the principal ones. Domestic shipping industry is further divided into inland and coastwise. The coastwise traffic, on the other hand, is comprised of Great Lakes, strictly coastwise and intercoastal. Different factors like economic, political, social, and many other natural conditions affect the shipping activities in United States.

Meanwhile, the ongoing recession has badly hit the US economy and its financial health. With the consumer confidence reaching historic low levels, consumer spending in this once flush economy came down to a trickle.

This has resulted in massive cuts in its imports and exports affecting the shipping industry severely. However, not all the divisions are affected in the same way. For instance, the New York State Canal System, an inland waterway recorded an increase in its throughput, while the foreign shipping division has been the worst hit of all. MG

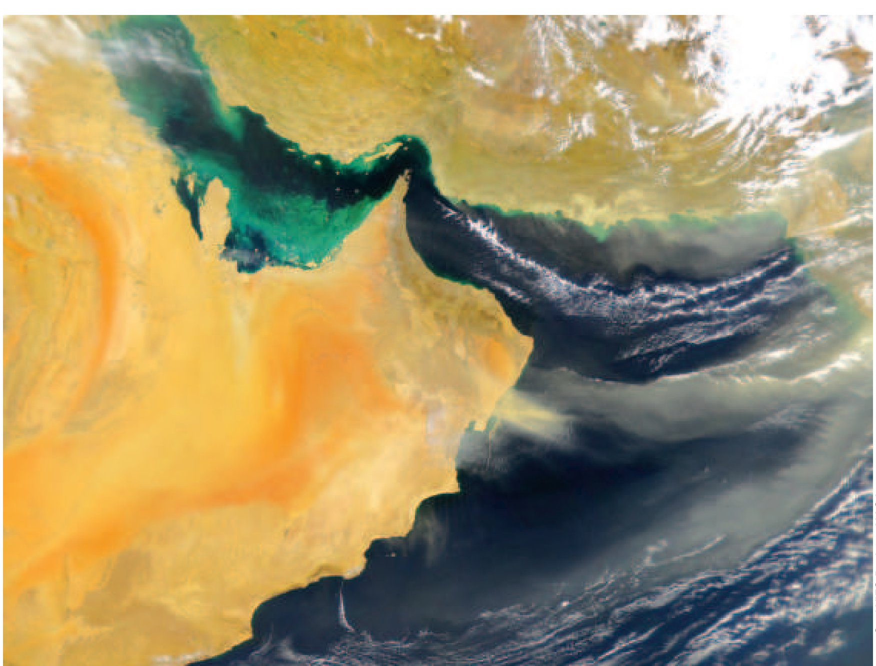
Reviving the Trade Lanes

Keeping in mind the still unstable market opportunities in traditional export destinations, Oman has come up as an alternative for economies reeling under the recessionary blowback. If we flip back into history, India Oman trade existed several centuries ago. The surge for markets is once again not about exploring new avenues for Indian goods and services, but re-establishing the bonds created much before we became hardwired into sovereign nation states.

By ***Susenjit Guha***

ARCHAEOLOGICAL FINDINGS in the eastern part of Oman confirmed India's historical links with the sultanate dating back to the third millennium BC according to official sources in their Ministry of National Heritage and Culture. Findings have been a continuous process since the 1980s by experts from France and Italy assisted by local teams. Oman's director of archaeology, Biubwa Ali Al Sa-bry said, "Discoveries at Ra's Al Jinz, Ra's Al Hadd and El Suwayh sites in the Eastern Region have provided an undoubted evidence of trade relations between the ancient Omani people and the civilization centers of India, Mesopotamia and Africa."

The bilateral trade process between India and Oman has once again picked up steam in recent years and is expected to cross US$ 2.5 billion by the first quarter of 2010 according to Anil Wadhwa, India's ambassador to Oman. He told in an interview to the Oman Daily Observer newspaper during the 2009 Independence Day celebrations of India that trade was growing from year to year. While in January –February 2008, trade was $398.7 million, in the same period in 2009, it had reached $447 million.


Source: SeaWiFS Project, NASA

Among several examples of the buoyancy, he cited L&T's MOU with Oman for setting up a branch for making cutting edge equipment for the construction industry. Oil exploration would be ramped up with a consortium formed by GAIL, BPCL, HPCL, Videocon and Reliance as they have already got the rights for a number of blocks. Luxury hotel ventures by Oberoi and Taj in Oman are also on the blueprint. Even local IT companies in Oman were hunting for tie-ups with Wipro and Infosys. Reemal Mining Company had been set up by Tatas with Al Bahja Group in the sultanate for gypsum and limestone mining. LNG exports from Oman jumped nearly 100% over the previous year's figure.

Larsen & Toubro has a considerable presence in Oman with several manufacturing facilities lined up apart from being a global player worth $8.5 billion. The fine tuning of the modular fabrication facility would enable L&T to become the largest manufacturer for power and hydrocarbon sector under the flagship of L&T Heavy Engineering in the sultanate. Already 4 companies are running in collaboration with Zubair Corporation in Oman. The company plans to reach out and cover not only construction, but power transmission towers and equipments for critical processes as well. The complex has a built up area of 12,000 square meters and covers nearly 300,000 square meters with 100,000 more square meters for expanding the built up area in the offing.

India-Oman trade and tie ups are not only taking place at a country to country level, but between states in India also. Last August, the Industries and Trade Minister of Oman, Maqbool Ali Sultan came calling to Gujarat leading a nine member delegation and met CM Narendra Modi to forge relationship for a specific Oman and Gujarat trade and follow up on the MOU inked earlier. Early last January during the investors summit in Oman, a MOU was gotten done for setting up a port project in the state with the Gujarat government as a partner. The Gujarat CM was also invited by the delegation to visit the Sohar port in the sultanate, the free trade zone and the international trans-shipment hub. Primarily, it is the large coastline of Gujarat that can be used to further Gulf bound exports. For trade with the Gulf, Gujarat is the best and most viable shipment point.

But resurgence was also witnessed in the oil sector ever since Bharat Oman Oil Refineries Ltd. (BORL) was formed way back in 1993 as a 50:50 joint venture company. Oman Oil Company (OOC) hiked 26% of its share in the Rs.11,397 crore Bina Refinery project belonging to public sector oil giant Bharat Petroleum Corporation Ltd. (BPCL). The project will be up and running early 2010. Earlier, OOC restricted equity to just Rs75 crores in the Madhya Pradesh refinery that has a yearly capacity of 6 million tons, but has now paid Rs.5 more for a Rs.10 equity share. Due to delays, the Omanese company had frozen equity stake at 2% all along.

Source: Port of Salalah

This has single-handedly proven the need for both Oman and India to reshape and remove past hurdles in view of the changing global thrust markets. With 26% partnership in the project, Oman has not only shown the importance of India as a trading partner, but the move also resonated well with other business groups in both countries. Oman is the largest supplier of crude to India and close to 100 Indian companies are in the process of executing projects in the sultanate while 25 of their companies have a considerable presence in India.

Forging of alliances between the two countries in the oil sector, there are also studies that are underway for an undersea pipe line between the India and Oman. India could benefit by loads and much of her energy requirements would be catered to as felt by Oman's Ambassador Sheikh Humaid Bin Ali Bin Sultan Al-mani according to reports in The Hindu last October. A premier daily reported that feasibility studies are still continuing as the project would involve large amounts of money. Technically, the pipeline will be 1100 km long and embedded over 3500 meters below the sea level. Reports in The Hindu also indicated that such depths were unheard of in any pipeline anywhere in the world. Speaking to the paper, the ambassador highlighted a joint fund worth $100 million that would slowly be scaled up to $1.5 billion for

India-Oman Trade overview (in Rs. million)

Calendar Year	Non-oil imports	Exports	Total
2005	8,498.49	18,479.99	26978.48
2006	15,008.21	26,792.67	41800.88
2007	21,209.86	48,237.88	69447.74
2008 (Jan to Jun)	13,312.30	25,997.57	39309.87

Source: Oman 2009 Report by Oxford Business Group aiding development projects in Oman and India. Oman has also persuaded India to sign an FTA with the GCC or the Gulf Cooperation Council consisting of 6 members.

Workforce to Dubai may have been hit by the recession, but Oman also has a large number of Indians, numbering nearly 400,000 working there. Back in 2007 end, India and Oman had also signed several agreements to protect their investments and do away with double taxation. There have also been agreements for heightened cultural and trade ties when Oman's Deputy Prime Minister Sayyid Fahd bin Mahmoud met Indian Prime Minister Dr. Manmohan Singh. Several MOU's were signed for small and medium scale industries as well as tie-ups in the education sector. There are operations in Oman of Indian insurance companies as well.

And it is not only in trade and industry only that both countries are trying to forge bonds and renew old ties, but in areas of security as well. Joint exercises by the RAFO and the IAF last October was primarily aimed at getting a hang of administrative, maintenance and operational procedures and it was a first with any nation from the region. It was in tune with information exchanges, arms sales and military cooperation where India agreed to assist Oman in the event of any assistance sought by the sultanate. Even the Defense News report indicated that Oman toyed with the idea of stationing Indian troops. Securing India's maritime trade in the Gulf could move steps ahead with the India Oman security agreements.

The security agreement was not without reason as 50% of India's expatriate workforce is based in the Gulf and remittances sent were a whopping US$ 52 billion – more than 45 of India's GDP and a fifth of total remittances – in 2008 according to World Bank estimates.

It is the intertwining of interests in the present that brings back memories of India Oman linkages that date back to 3rd Century BC. As the world gets closer and more interconnected based on economics, the developments with Oman could signal another thrust for Indian business in the Gulf region with her oil needs predominating. MG

Susenjit Guha *is a Kolkata-based freelance writer and an independent thinker. His articles are published in The Asian Age and Deccan Chronicle.*

HMS Northumberland that took part in Operation Atlanta.

Source: Mercopress

Fighting Maritime Piracy

Recent Advances

by ***Raunek Kantharia***

The last few years have seen an upsurge in the piracy attacks on the sea-going merchant ships, especially off the coast of Somalia and Gulf of Aden. The vulnerability of the ships transiting in these areas has drastically increased in spite of various steps taken in the past to deter such armed robberies. Moreover, to get the best out of their malign activities, pirates have started using latest technology and particularly target large coastal areas with high level of commercial activity, least national naval force vigilance and weak security cooperation mechanism.

IT IS not just big commercial ships but even private yachts, tugs and a variety of cargo vessels that are coming under the radar of piracy. The old ideology of pirates using dilapidated boats and home-made weapons is now totally outdated. The modern pirates, especially those in the Somali waters are equipped with technologically advanced weaponry such as rocket launchers, AK 47s and GPS equipments, thanks to the increasing cooperation of terrorists. Needless to say, our merchant ships which are devoid of any kind of weapons on board are totally defenseless in front of accessorised modern pirates. However, it's not the lure of these small cargo vessels or recreational yachts that are driving the pirates to these areas but the huge tankers that carry around 30 per cent of the world's oil.

To fight this grave problem, many prudent ship operators have already joined forces with the respective governments and concerned agencies to deploy the necessary self-protection measures for the seafarers and to ensure the safest possible conditions for their crew, a need which is of the highest order. Moreover, the United Nations has also stepped in and in concurrence with various super powers from all over the world has enacted several substantial steps to fight piracy from the grass root level.

Especially, in retaliation to the sporadic piracy attacks that have taken place in the last few years, in December 2008, the European Union launched a naval mission, Operation Atlanta with two main intentions – to protect the humanitarian ships of world food program that provides food aid to the destitute people of Somalia and to prevent and repress the act of piracy and thus protect the vulnerable merchant ships off the Somali coast. Operation Atlanta is the first European Union Maritime Operation that is being conducted under the European Union Operation commander rear Admiral Phillip Jones of UK Navy. Moreover, because of the series of recent piracy attacks, the operation that was initially planned to last for 12 months has been extended by the European Council until December 2010.

Project Atlanta has been extremely successful till now in deterring piracy activities.

According to the original plan, 6 ships and 3 Maritime patrolling air crafts guard the Somali waters. Moreover to increase its area of effect, European Union has doubled the size of its area of operation by 2 million square miles. At the base of the successful Operation Atlanta lays a computer-based system known as

Mercury. Mercury is a highly secure but unclassified system for sharing real-time, tactical information across an open network that is shared by all the nations that have sent their vessels to patrol the Somali waters. Mercury tracks the movement of vessels in Somali waters with flash reports and shares the results via satellite, UHF, VHF and internet-based data with the vessels that are protecting or escorting merchant or humanitarian vessels. Since its start in February of this year, Mercury has tracked around 10,000 to 15,000 vessels for over 5,000 registered users. The system not only allows faster response time to attempted piracy activities but also helps in preventing them.

Also to back the Atlanta Operation, the North Atlantic Treaty Organization (NATO), which already has its forces patrolling the Gulf of Aden, will provide the necessary base and support. NATO also plans to deploy two of its maritime groups under an operation named Ocean Shield in the high pirate infested areas. This operation aims to provide protection to around twenty one thousand vessels that use the Gulf of Aden each year. The NATO forces would work in tandem with the European Union Naval Force (EUNAVFOR) and the US led Counter Piracy Task Force 150 and 151. India along with countries such as China and Russia has already deployed its ships to ensure safety of merchant vessels in the Gulf of Aden. Indian Navy's missile frigate Godavari has been deployed for the anti-piracy activities undertaken by NATO. Moreover, not just countries having less distance from piracy affected areas are sending their troops to the Gulf but even countries such as Germany, France and Britain have sent their navies. As part of Operation Atlanta, Germany has not only dispatched its frigate Karlsruhe but also1400 German military personnel in the Gulf of Aden.

Apart from Operation Atlanta, many other organisations around the world have also raised their voice against piracy in Somali waters. Intertanko, an International Association of Independent Tanker Owners has been the voice of many independent tanker owners since 1970, ensuring that the oil that keeps the world turning is shipped safely, responsibly and competitively. The organisation fully supports the EU governments Operation Atlanta and recommends each any every owner to register with the operation.

Thus Operation Atlanta works as a Joint coordinated project that works round the clock using real time operation inputs from local government, EU and NATO forces and merchant vessels. Moreover, to coordinate the patrolling of individual navies and combined forces and also to keep them abreast with the current situation, an initiative known called Shared Awareness and Deconfliction (SHADE) has been formed under the United Nation's Combined Maritime Force. Under SHADE, all the patrolling navies meet once a month to have a command level tactical and strategic discussion to bring more transparency and efficiency to all the anti-piracy operations taking place in the area.

United Nation has also entered into an agreement with Kenya in order to deal with the issue of trails of pirates arrested. Under this agreement till now around sixty eight pirates have been taken into custody and handed over to the Kenyan authorities for trail. Moreover to broaden their area of military operation in Somali waters, EU has also collaborated with regional governments. Regions such as Seychelles and Yemen have already been contacted for assistance in both naval and coast guard activities to deter piracy from the root cause.

Moreover, the anti-piracy forces have recognised that once a merchant vessel is boarded by pirates there is little hope for preventing piracy from taking place without putting life and property at stake. For this reason, everyone involved with Operation Atlanta believe that preventing pirates from boarding the vessels should be the first and foremost priority of every mission. However, many people involved with the organization believe that rather than addressing the symptoms of piracy problems using naval protection forces, the root cause behind the problems that lies ashore should first be found and tackled with.

The unison also claims that until the root cause ashore remains unresolved the piracy situation would continue to persist for a considerable amount of time. MG

Facts about Operation Atlanta:

1. The operation focusses on three main things:
   - Protection of humanitarian vessels of the World Food Programme that delivers food aid to the people of Somalia.
   - Protection of vulnerable merchant ships cruising off the Somali coast.
   - Prevention of the acts of piracy and armed robbery off the Somali coast.
2. Operation Atlanta is the first EU maritime operation.
3. It is being conducted within the framework of the European Security and Defence Policy (ESDP).
4. The operation is in accordance of the United Nations Security Council (UNSC) Resolutions 1814 (2008), 1816 (2008), 1838 (2008) and 1846 (2008)
5. The main people in-charge of the operation are:
   - EU Operation Commander: Rear Admiral Phillip Jones, UK Navy.
   - Deputy Operational Commander: Le Contre Amiral Jean-Pierre Labonne from the French Navy.
   - EU Force Commander at Sea: Commodore Antonios Papaioannou from the Greek Navy.
6. The operation was initially planned to go for 12 months, however it has been extended till the end of 2010.
7. It has its headquarters in Northwood, (West London) United Kingdom.
8. It has 6 ships and 3 maritime patrol aircrafts for the operation.

The Official Speak

India's GDP expanded 7.9 per cent in the second quarter this fiscal, up from 6.1 per cent in the first quarter. The government is upbeat about the spurt in GDP growth and sees the figures as further confirmation of the economy's recovery. This is good news for the maritime industry.

India's Prime Minister Dr Manmohan Singh after addressing the US India Business Council recently

"*There is enormous scope for American investments in the development of key infrastructure, including road, rail, airports and ports. We see enormous opportunities. All fields are open for economic participation. Our relations have been transformed and they encompass cooperation in all areas of human activity.*"

G K Vasan, Minister of Shipping, Government of India in a written reply to a question in Lok Sabha on Maritime Security

"*After the incident of November 26, 2008 in Mumbai, the Government has taken various measures to strengthen the coastal security of the country. In addition, the Government has also approved a proposal for establishment of Automatic Identification System Network along the coastline of India at an estimated cost of Rs.70 crore.*"

Anand Sharma, Minister of Commerce & Industry, Government of India during a press meet

"*So far this year (April-October 2009-10), India has received about US$ 18 billion FDI and $ 18 billion as FII...We feel that it is a clear expression of foreign investors confidence in the Indian economy. The Indian economy is now picking up growth momentum and restoring confidence in investors.*"

APVN Sarma, Former Secretary, Ministry of Shipping, Government of India at the opening session of SMM India 2009

"*The world has come to recognise the potential of the Indian shipping industry, its capability to innovate and grow on the global stage. Given India's continuous growth rate, I am upbeat all sectors related to shipping have enormous scope.*"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