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Issues & Challenges in India

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Port Logistics Issues & Challenges in India

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Fax: +91 22 2857 2060
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New Delhi Office
1st Floor, Administrative Building,
Block 'E', NSIC - Technical Services Center,
Okhla Industrial Estate Phase - III,
New Delhi - 110020.
Tel: +91 11 4149 7900 / 01
Fax: +91 11 4149 7902

Kolkata Office
166B, S. P. Mukherjee Road,
Merlin Links, Unit 3E, 3rd Floor,
Kolkata - 700026.
Tel: +91 33 2465 0204
Fax: +91 33 2465 0205

Chennai Office
New No: 28, Old No: 195,
1st Floor, North Usman Road,
T. Nagar, Chennai - 600017.
Tel: +91 44 2814 2265 / 75
Fax: +91 44 2814 2285

Ahmedabad Office
801 - 8th Floor, Shapath V,
Opp. Karnavati Club,
S. G. Highway
Ahmedabad – 380054.
Tel: +91 79 6616 8058 / 59
Fax: +91 79 6616 8064

Bengaluru Office
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1st Floor, Annaswamy Mudaliar Street,
Opp. Ulsoor Lake,
Bengaluru - 560042.
Tel: +91 80 4250 3500
Fax: +91 80 4350 3540

Hyderabad Office
504, 5th Floor,
Babukhan's Millennium Centre,
6-3-1099 / 1100, Somajiguda,
Hyderabad - 500082.
Tel: +91 40 6662 4102, 6651 4102
Fax: +91 40 6661 9358

Research & Analysis	Dr. Arun Singh
Key Team Members	Dipshikha Biswas, Seema Nair, Raj Kiran, Sharika Dhar
Design Team	Nayna Banerjee, Sonal Gangnaik and Mohammed Yakoob

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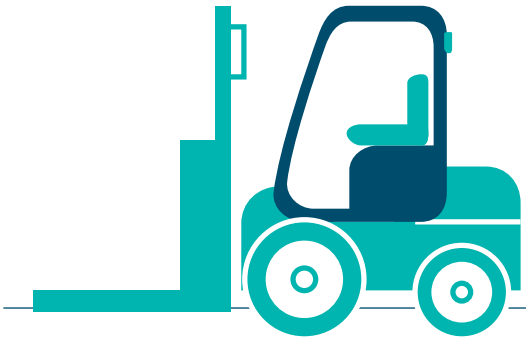


सुरेश प्रभु
SURESH PRABHU

सत्यमेव जयते

वाणिज्य एवं उद्योग मंत्री
भारत सरकार, नई दिल्ली
MINISTER OF COMMERCE & INDUSTRY
GOVERNMENT OF INDIA, NEW DELHI

स्वच्छ भारत
एक कदम स्वच्छता की ओर

MESSAGE

Globalisation has led to the progressive integration of the world economy by reducing trade barriers and enabling greater mobility of goods and services. For the first time, world seaborne trade crossed the 10 trillion tonne-mark in 2015 and grew by 2.6% in 2016. The long-term growth prospects for seaborne trade and maritime businesses are positive, and this presents the developing countries with ample opportunities for accelerating foreign trade.

India has set an ambitious export target of US$ 900 billion by 2020. To achieve a target of 5% share in world exports, India's exports need to grow at an average rate of over 26% for the next five years. In the recently announced mid-term review of the Foreign Trade Policy 2015-20 (FTP), changes have been introduced to promote exports and facilitate exporters.

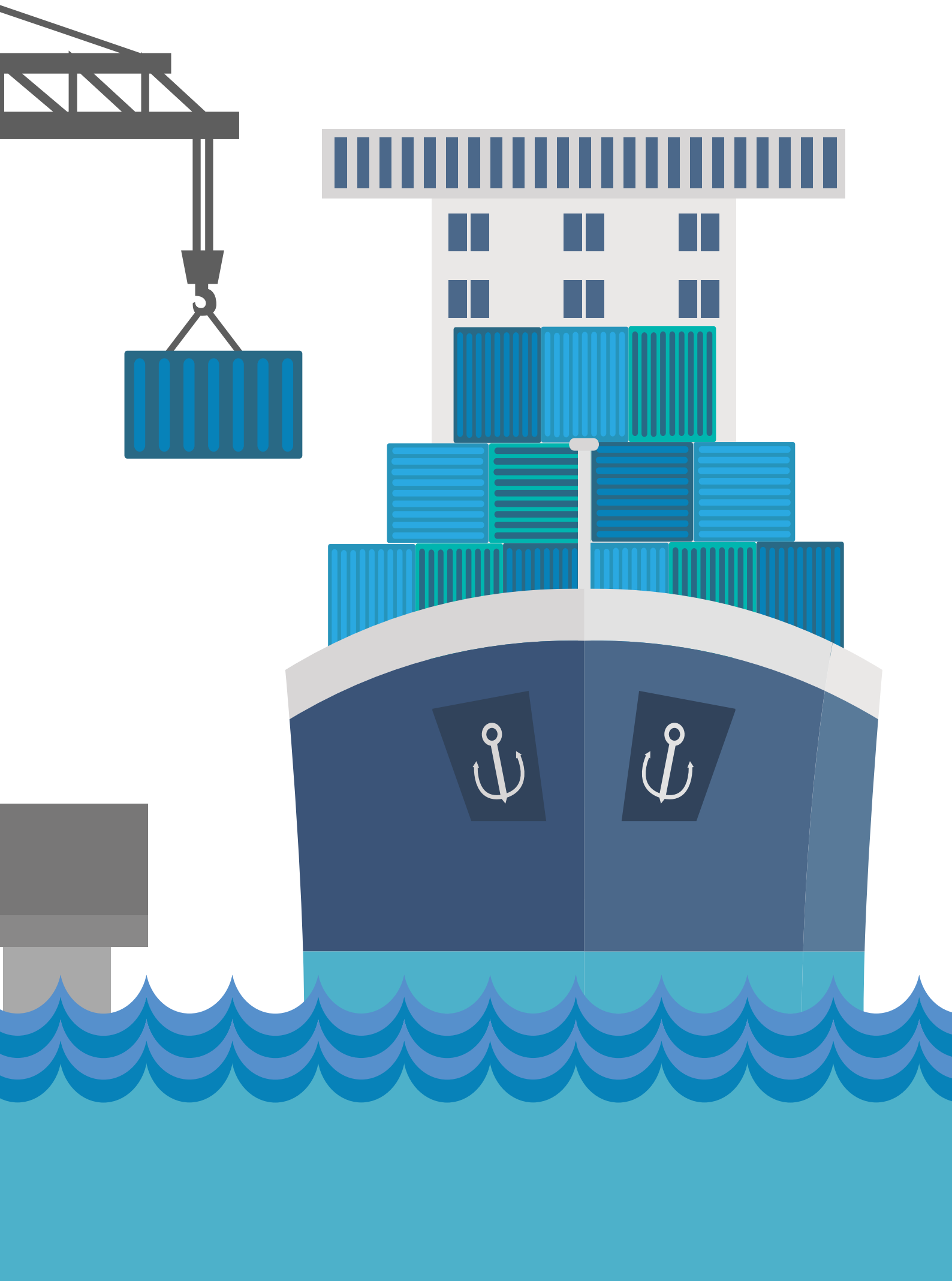
In the backdrop of the growing importance of maritime trade to the Indian economy, the need of the hour is to identify and plug the loopholes that are dragging India's performance in the global trade context. Some of the biggest challenges towards promoting trade are infrastructure bottlenecks, operational inefficiencies, complex procedures, time delays and high transaction costs amongst others.

Accordingly, infrastructure status to the logistics sector is a major milestone for the country, as it will boost competitiveness and enable the industry to address some of the challenges. The FTP will also leverage the long term advantage of the GST, in terms of reduced compliance and logistics costs. It will focus on exports from labour intensive sectors, and emphasis will be given on Ease of Trading across borders. Besides appropriate regulatory and policy interventions, there is a need to create more infrastructure, at a much faster pace, to meet the growing demand and build adequate logistics backbone for India.

Considering the multiplicity and depth of issues and challenges facing India's trade performance and competitiveness, I would like to congratulate Dun & Bradstreet for conducting the study 'Port Logistics: Issues & Challenges in India'. The study covers the ports sector, which represents bulk of India's merchandise trade. This is a unique and important study on Indian ports, capturing information from key stakeholders in the port ecosystem across all the major ports. I believe this study is timely, and adequately presents interesting first-hand insights on issues plaguing the Indian Port Sector and makes suggestions for plausible solutions for addressing these concerns. I am confident that with the right approach and vision, we can establish strong linkages between Indian industry and global value chains, and thereby create greater opportunities for India's trade.

(Suresh Prabhu)

उद्योग भवन, रफी मार्ग, नई दिल्ली-110011 / दूरभाष : 91–11–23062223, 23061492, 23061008 फैक्स : 23062947
Udyog Bhavan, Rafi Marg, New Delhi-110011 / Tel. No. 91-11-23062223, 23061492, 23061008 Fax : 23062947
E-mail : sureshprabhu@gov.in



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अध्यक्ष
BIBEK DEBROY
Chairman
Tel. : 011-23096594
Fax : 011-23096724
E-mail : bibek.debroy@gov.in

सत्यमेव जयते

भारत सरकार
प्रधानमंत्री की आर्थिक सलाहकार परिषद
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नई दिल्ली–110 001
Government of India
Economic Advisory Council to the Prime Minister
NITI Aayog, Parliament Street
New Delhi-110 001

3rd January, 2018

MESSAGE

Enhancing "ease of trading across borders" has been a topmost priority for the government. Over the last three years, the government has taken a number of steps to simplify and re-engineer business processes related to trade. While these steps have significantly improved doing trade experience in the country, some challenges still persist. Studies such as World Bank's Doing Business (DB) highlight concerns related to speed and cost which trade continues to face. But still, these studies do not assess the ground level situation in a manner that can help government identify specific challenges and design more focused policy interventions. Therefore, a need was felt to review bottlenecks that trade faces at the ground level on a day-to-day basis.

This study is much needed initiative in this context. Undertaken by Dun & Bradstreet, a reputed multinational company in the field of data analytics, this study attempts to examine issues and challenges related to port ecosystem in a comprehensive way. As per the study methodology, a total of 14 ports were chosen: 13 major ports and the port of Mundra. This was a fair representation of the nation's port network, as these 14 ports together accounted for about 70% of country's maritime trade. The D&B team reached out to more than 700 stakeholders comprising government officials, trade associations, exporter/importers, cargo handling agents, freight forwarders and collected feedback of these stakeholders on both qualitative and quantitative aspects of business transactions at ports. Such rich ground-level data and insights were then analyzed using statistical tools and meaningful insights synthesized for policy purposes.

This report titled 'Port Logistics: Issues & Challenges' is a result of the above painstaking effort. It highlights several issues, some common and some unique across ports, which impact the dwell time and cost to trade. More than 60 policy initiatives have been suggested for addressing these issues and challenges. This report also introduces a "Port Performance Index", an attempt to benchmark performance of various ports by combining qualitative perception of stakeholders with quantitative outcome based data. Overall, the study provides a good overview of areas where improvements are visible on ground and those where more actions are needed across various ports.

Given the breadth and depth of the topics studied in this report, I am sure that it will be a useful reference not only for decision makers in the government but also for those of us who have keen interest in the broader trade and logistics landscape. I welcome this initiative and hope that it is able to leave a thought provoking agenda for future set of actions: both for public and private stakeholders.

In the end, I would like to thank D&B team for their efforts and hope they continue this initiative and build further upon the scope in the coming years. Wishing them all the best.

(Bibek Debroy)

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Preface

Manish Sinha

Managing Director-India
Dun & Bradstreet

India aims to increase its share in world exports from around 2% currently to 3.5% by 2020. This would require creating a framework for strengthening India's industrial sector and increasing its product competitiveness. Enhancing product competitiveness in the global market in turn needs infrastructure for trade to improve. The Government of India is cognizant of inefficiencies in this area and has been taking multiple initiatives to correct these.

Ports are a key part of trade infrastructure. In this context, NITI Aayog has instituted a study to identify the key factors impacting the performance of port logistics in India and to deliberate upon measures to be taken. Dun & Bradstreet has conducted a study "Port Logistics: Issues & Challenges in India" which identifies various roadblocks faced by exporters, importers and freight forwarders.

While much research has been carried out in the logistics segment, the current study is unique on the Port eco-system, especially, given the scale i.e. covering 14 ports which handle around 67% of India's maritime trade, and coverage i.e. 700 respondents pan India. The findings of the study obtained through both primary and secondary research highlight specific issues, some common and some unique to the ports coveredin the study.

The key findings of the study have been as follows:

- There is no standardisation of processes, documentation, customs clearance etc. Number of documents can range from 3 to 20 for customs clearance, 9 to 15 for obtaining gate pass and 5 to 14 for getting the delivery order. A transparent platform accessible to all stakeholders is needed.

- As a result, costs and time for key processes are unpredictable. There is an unacceptable level of variation across ports as well as within an individual port. For example for exports, time taken at the terminal varies from 17 to 46 hours and time in transit (CFS/warehouse to terminal) varies from 10 to 32 hours.

- Several commendable initiatives have been launched, but not all outcome have been achieved. For example, the target set for Direct Port Delivery (DPD) was 40% of total imports by Dec 2016. By June 2017, DPD share in total import was around 28% at JNPT and 16% at Chennai port.

Based on the critical roadblocks identified during the study, Dun & Bradstreet has presented more than 60 policy inputs spread across operations, infrastructure and connectivity. I am confident that these inputs will be important in framing the required policy suggestions for improving the overall state of the port ecosystem.

We at Dun & Bradstreet would work with the government to expand the scope of this study to other logistics sectors. We also look forward to work at various levels with the government to implement the policy suggestions that we have recommended in the study. Furthermore, we are confident that the ground-level issues highlighted and the measures suggested to resolve the challenges in the given time frame will help in further facilitating ease of doing trade in India. I expect that you will find this report to be an interesting and insightful read.

Executive Summary

Dr. Arun Singh

Lead Economist
Dun & Bradstreet, India

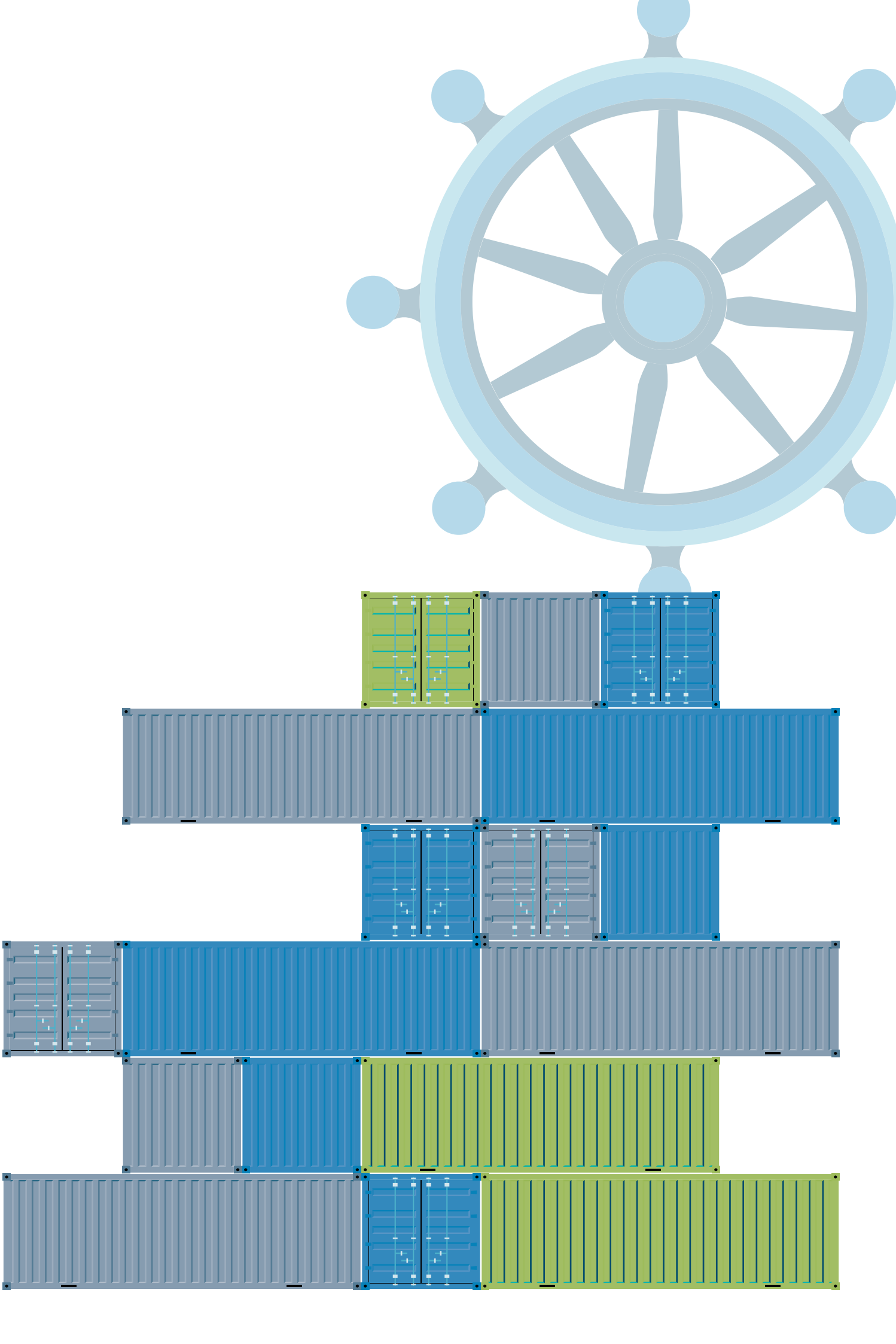
India's merchandise trade has grown at more than twice the growth rate of the world merchandise exports over the last decade. Yet, the share in world trade is a mere ~2%. Besides the need to develop a more strategic approach to gain global market share, the challenges faced by the traders in the port eco-system need to be addressed. These issues to an extent, has limited India's ability to exploit its maritime trade competitively.

In order to assess the longstanding ground level challenges which would help in taking cognitive actions to improve the performance of selected ports, a study has been instituted by the Niti Aayog. The study 'Port Logistics: Issues & Challenges in India' was executed by Dun & Bradstreet (D&B) to identify the on-ground issues faced by the end users of the port i.e. exporters, importers and freight forwarders, and accordingly benchmark the performance of the selected Indian Ports. The D&B team has reached out to relevant stakeholders in the port eco-system i.e. exporters/ importers, cargo handling agents, freight forwarders, trade associations, customs, port officials and other government officials for conducting the study.

The extensive primary and secondary research conducted during the study has highlighted various issues, some common and some unique across the ports. In light of the inherent characteristics of the port ecosystem and the resultant challenges faced by trade, the study recommends inputs for policy measures that could be taken to address the various concerns identified in the study. It is expected that a focused approach towards arriving at an actionable and effective solution of the addressable issues that has been identified in the study could largely bring down the transaction time and cost of trade.

The key highlights of the report have been mentioned below:

- The study involved identifying the challenges faced by various stakeholders while conducting trade at India's 13 major ports and one non-major port Mundra which handle around 67% of India's maritime trade.
- The scope of this study is limited only to container and bulk cargo handled at these ports and does not cover liquid cargo.
- The study involves primary survey of around 700 participants (i.e. exporters, importers, CHAs, freight forwarders and industry stakeholders) pan India.
- A Port Performance Index was designed for all the 14 ports on the basis of primary and secondary research. Three broad categories of database/information have been taken into consideration for the construction of the Port Performance Index i.e. Primary quantitative, primary qualitative and secondary qualitative.
- Based on the survey results, scores have been assigned to all 14 ports. 4 ports (Mundra, JNPT, Kamarajar, Vizag) have received 'Good' score; 7 ports (Cochin, Kandla, Paradip, Chennai, Mormugao, New Mangalore and VOC) have received 'Average' score and & 3 ports (Haldia, Kolkata and MbPT) have received 'Poor' score.
- 5 issues, namely port congestion, customs clearance (including scanning & ICEGATE), shipping line issues & charges, documentation & paperwork, and



regulatory clearance are the most common problems across ports and out of these just 4 issues, constitute 80% of total issues causing detention & demurrage

- The average cost incurred by the trade on port logistics as a percentage of the total value of consignment is 15%. The average port logistics cost at the major bulk cargo ports on the east coast (16%) was found to be slightly higher as compared to the west coast (14%).
- Break-up of the total port logistics cost reveal shipping line charges account for the major share of cost (36%), followed by detention & demurrage (22%).
- 85% of respondents were charged detention and demurrage up to 20% of the time they trade in a year.
- The three major findings of the report are - Processes and operations across the ports are not standardised or uniform; Costs and time for key processes are unpredictable and variation in time and cost to trade is not only observed across ports but also within the same port; Several initiatives taken need to be followed through to completion

Policy inputs suggested based on findings

More than 60 policy inputs have been suggested across operations, infrastructure and connectivity which have been classified under 12 broad policy inputs. Since the time-frame and efforts to implement the various initiatives suggested is expected to vary, the 12 broad categories have been further classified into three sections; Policy inputs that could be considered in the short term, those that could be implemented in the medium to long term and areas for further study. The 12 broad categories are:

1. Promote Direct Port Delivery & Direct Port Entry to facilitate container trade
2. Ensure transparency in Shipping line charges & operations and regulate Shipping lines/promote domestic Shipping lines
3. Common digital platform – Bring all stakeholders on a single platform which can be named as “National Portal for Cargo Facilitation (NPCF)”
4. Enhance customs clearance process
5. Promote 24x7 operations across stakeholders
6. Periodical performance audits/monitoring of terminals & resolution of tariff disputes
7. Standardise trade processes across ports and stakeholders
8. Consolidate CFS, convert them into warehouses and link all with railways
9. Augment rail infrastructure & operations
10. Overhaul physical infrastructure & enhance productivity
11. Rationalise documentation and process all documents through NPCF
12. Timeframe for regulatory clearances

This study has been a unique one given the scope & coverage and also well-timed given the need to address concerns related to ease of trading. A determined effort is necessary to identify and resolve the issues in a sustained to manner to achieve India’s ambition to climb up the ranks in the Ease of Doing Business rankings.

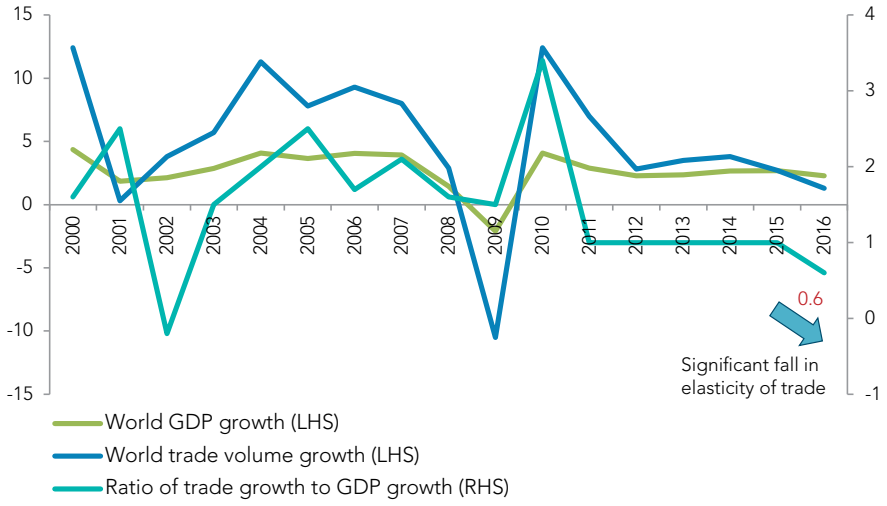
Chapter 1
TRADE OVERVIEW

Trends in world trade

World trade dynamics have changed since the global recession. Since the Second World War, the volume of world merchandise trade has grown by about 1.5 times faster than world GDP and in the 1990s it grew more than twice as fast. However, in the aftermath of the global financial crisis, the ratio of trade growth to GDP growth has fallen to around 1:1, underlining the weakening in the relationship between trade and GDP growth. After strongly rebounding in 2010 and 2011, world merchandise trade has grown at a sluggish pace that further deteriorated in 2016, with an increase of just 1.3% in 2016 - lowest growth rate in volume terms since the financial crisis and well below the 4.7% average annual rate since 1980.

Elasticity of world trade reduced to 0.6 % in 2016 from a peak of 3.4% in 2010

Ratio of world trade growth to world GDP growth (%)



Source: WTO

Trading patterns

TRADE CONCENTRATION

- The top 10 traders in merchandise trade accounted for a little over half of the world's total trade in 2016
- The top 10 traders in world commercial services represented more than half of the world's total trade in commercial services in 2016

GEOGRAPHICAL SHIFT

- Developing economies had a 41% share in world merchandise trade in 2016
- Developing economies accounted for 34% of total trade in commercial services in 2016

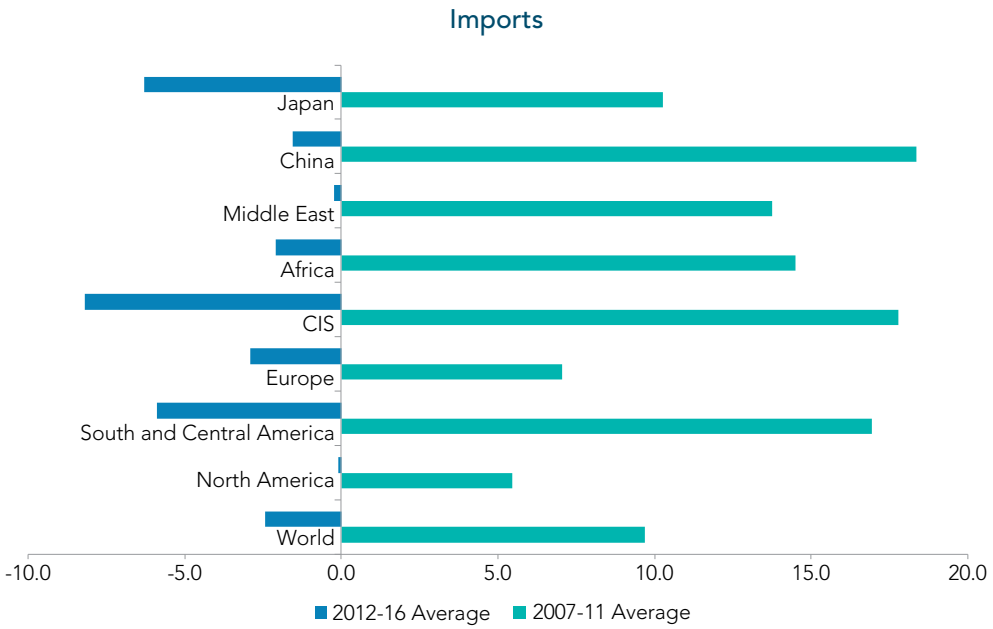
The year 2016 has been different from the other post crisis years, in that, trade sluggishness was a characteristic of both advanced and emerging economies, although the latter were more strongly affected. Export and import levels remained below the pre-2015 trend.

Exports recorded modest growth of 1.4% in developed economies and 1.3% in developing economies. For 2016, imports of developed economies grew by 2% while growth in imports of developing economies stagnated at 0.2%.

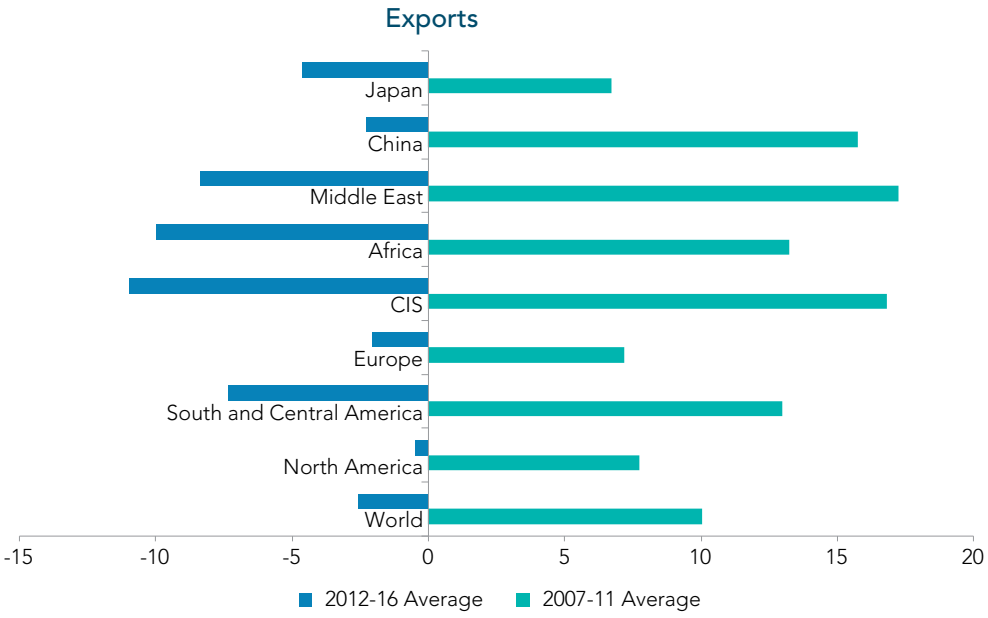
Despite recording increases in its merchandise exports and imports in 2016, North America was responsible for much of the weakening of trade growth last year, largely attributed to low oil prices and declining rates of investment, particularly in the energy sector. Asia and Europe were the only regions making significant positive contributions to global import demand in 2016. With 13% of world exports and 10% of world imports, movements in Chinese trade - whether they are a result of independent structural changes going on in China or a reflection of worldwide factors - will have significant implications for the global economy.

Average growth in merchandise exports and imports by region

(Average annual change, %)



Source: WTO



Source: WTO

Trade remained sluggish in both advanced and emerging economies in 2016

Currently, more than half of the world's manufacturing imports are intermediate goods and more than 70% of the world's services imports are intermediate services

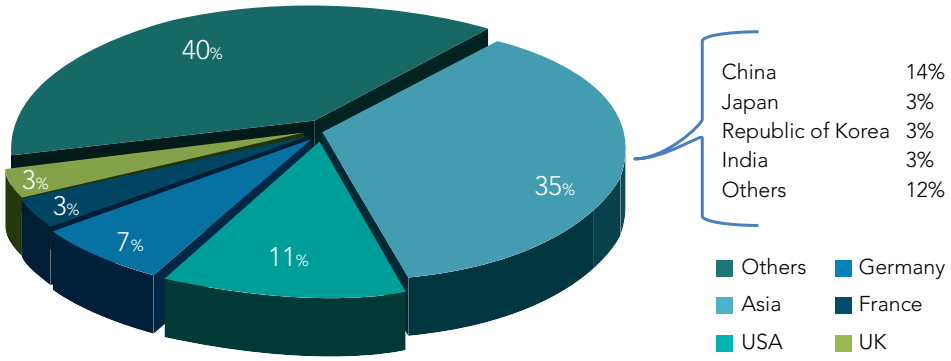
Exports by major product groups

Differentiated by broad category, manufactured goods accounted for over 70% in total merchandise exports. Exports of manufactured goods declined for the second consecutive year in 2016 owing to persistent weakness of import demand from developing countries in East Asia for manufactured goods. These economies, which were the main engine behind the growth in international trade during the last 25 years, are now entering a new development stage more focused on domestic demand rather than export supply. Moreover, East Asia is also experiencing a shortening and consolidation of global value chains, especially in relation to China.

World trade in intermediate goods has grown with the rise of vertical specialisation. Currently, more than half of the world's manufacturing imports are intermediate goods (primary goods, parts and components and semi-finished products) and more than 70% of the world's services imports are intermediate services, such as business services. Exports increasingly include value added imports from abroad. Although they experienced a consistent decline in 2015, intermediate products still represent a substantial part of world trade (about US$ 7 tn in 2015). Trade in consumer and capital products was more resilient, falling slightly in 2015. These flows were valued at about US$ 4 tn and US$ 2.5 tn. Lower commodity prices led to a substantial decline in trade in primary products. Global transport exports continued to fall as subdued trade due to stagnating economic conditions and overcapacity hit the shipping and airline industries.

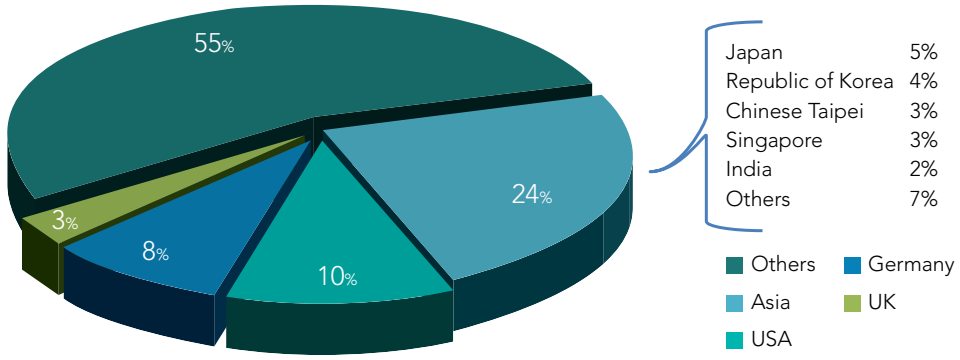
Major importers of intermediate products, 2015

% share in total imports

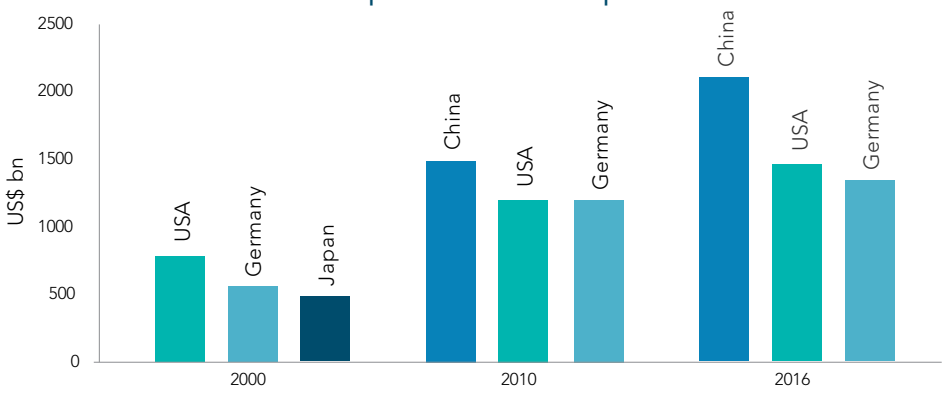


Major exporters of intermediate products, 2015

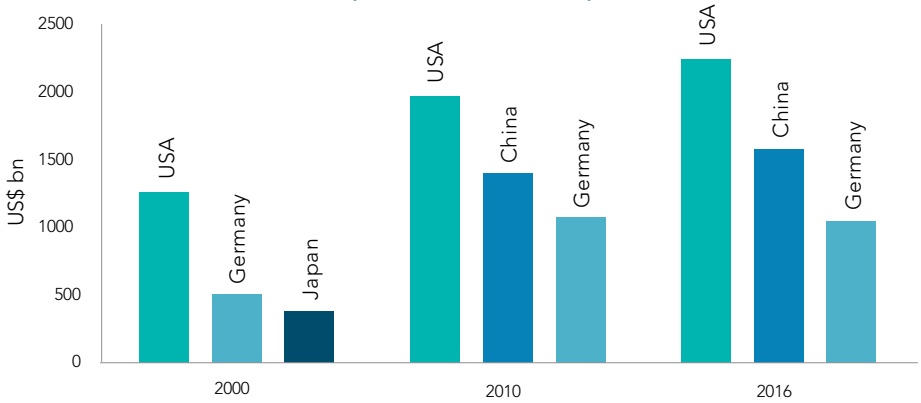
% share in total exports



World's top 3 merchandise exporters



World's top 3 merchandise importers



Source for above 4 charts: WTO

China, the United States and Germany remained the top three traders for both merchandise exports and imports in 2016. China's exports totalled US$ 2.10 tn, a decline of 8% following a 3% decrease in 2015. Manufactured goods accounted for more than 96% of China's total exports with the three top destinations for China's exports of manufactured goods being Asia (37% share), North America (26%) and Europe (20%). Over the past two years, US merchandise trade has declined by 4%, compared with average growth of 2% in 2013 and 2014.

India trade overview

Overall trend in merchandise export and import

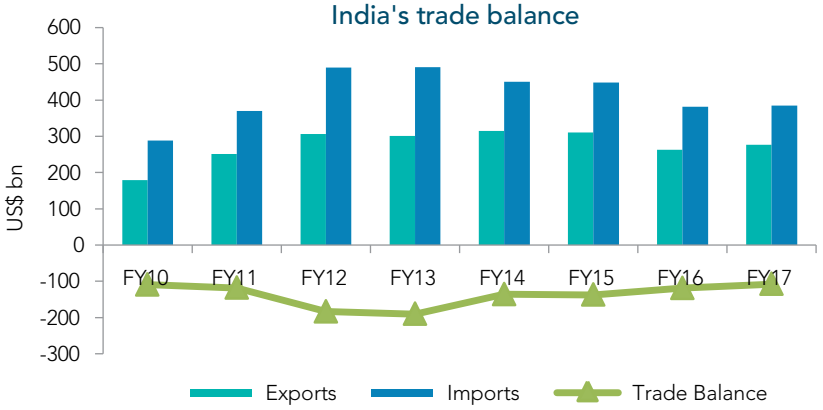
The slowdown in global growth and investment, uptick in protectionism, falling commodity prices and decline in growth of global value chains has had a bearing on India's foreign trade. Merchandise exports, after reaching the highest level of US$ 314.4 bn in FY14, marched downwards for two consecutive years. India's export growth declined during FY15 and FY16, by 1.3% and 15.5% respectively. The slowdown was primarily attributed to:

- Fall in global demand and fall in commodity prices, impacting terms of trade for commodity exporters
- Fall in the prices of petroleum crude resulting in consequent decline in prices as well as export realisations for petroleum products, which are major items of exports for India
- Stagnation and deflation in EU countries - that account for nearly 16% of India's export. Slowdown in China's economy and uncertain economic conditions in USA
- Fall in demand of precious goods like pearls, precious and semi-precious stones, especially from oil producing countries

China, the United States and Germany remained the top three traders for both merchandise exports and imports in 2016

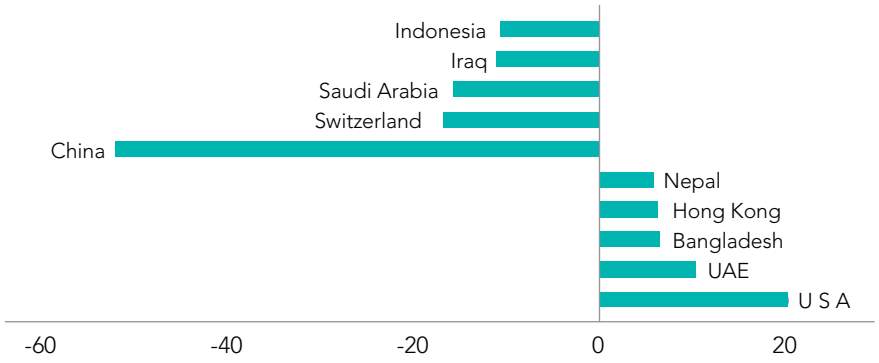
Share of China in India's total trade deficit more than doubled to 47.3% during FY12 to FY17

After an interregnum of two years, merchandise exports (BOP basis) grew by 5.2% in FY17 with positive growth in both Petroleum Oil and Lubricants (POL) and non-POL exports. Pick up in crude oil prices in FY17 led to a marginal increase in imports, after falling continuously since FY13. India's trade deficit (on customs basis) which increased steadily from FY05 and reached the highest level of US$ 190.3 bn in FY13 due to increase in imports of crude oil with the rise in international crude oil prices and also increase in gold imports, has registered continuous decline since FY15, reaching a level of US$ 108 bn in FY17. India's total trade deficit is mainly due to its trade deficit with China. Share of China in India's total trade deficit increased from 19.9% in FY12 to 47.3% in FY17.



Source: DGCI&S

Breaking down the trade balance (FY17) (US$ bn)



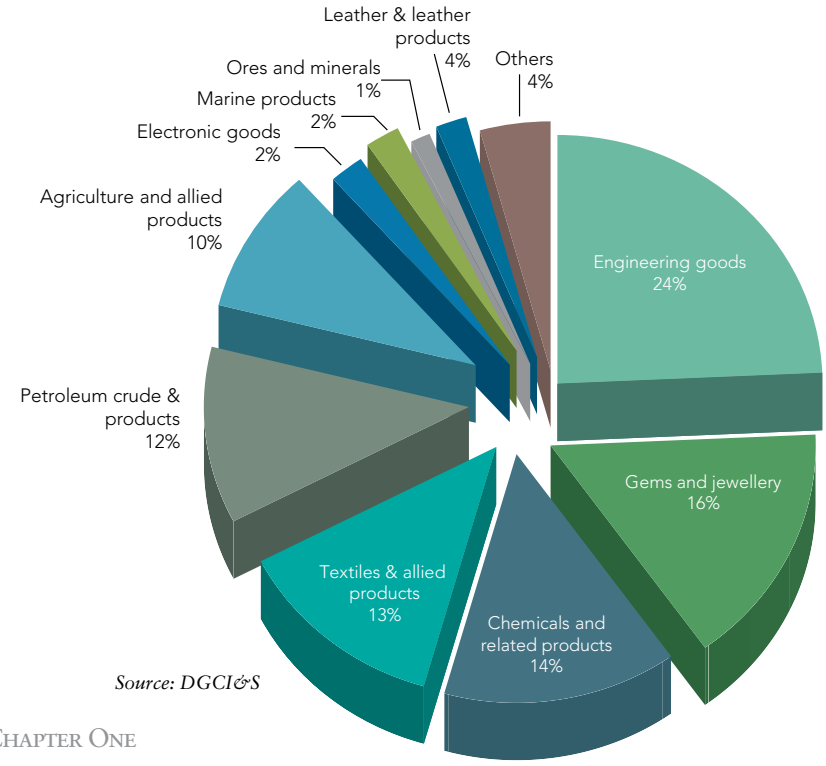
Source: DGCI&S

Composition of trade

The composition of India's exports has changed significantly over time. There is a structural shift in India's exports, away from primary, agricultural and traditional exports like textiles towards more value added manufactured and technology-based items such as engineering goods, refinery products, pharmaceuticals, etc. The share of petroleum products in India's export basket increased dramatically from about 2% in 1993 to 11% in FY17 with the growth of private sector oil refineries. The top six export commodities constituted 88% of India's total exports in FY17. India's share in world exports increased from 0.9% in 2005 to 1.7% in 2016. Despite a near doubling in India's export share in world exports in the last 10 years, India's share in world exports is still very small, compared to China's 13% in 2016, which increased from 7.3% in 2005.

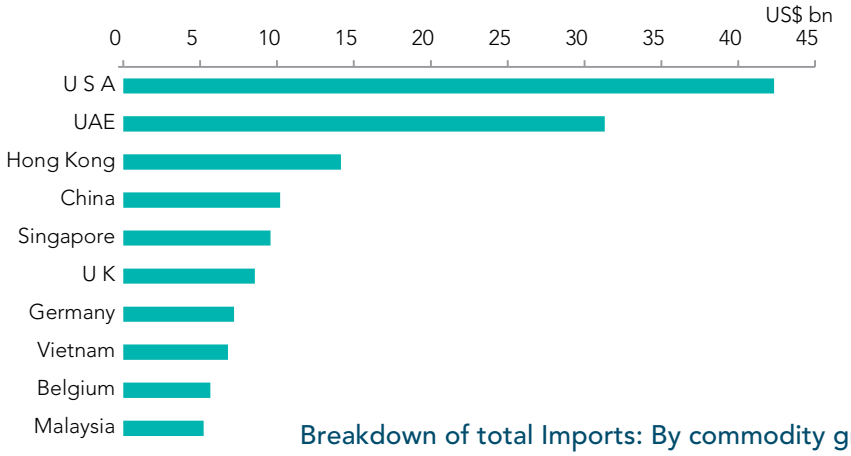
Moreover, India has a marginal presence in most of the top imports of the world, with depth in its presence only in a few categories like diamonds and articles of jewellery, some textiles items, PoL, some medicaments and some chemicals. In 2015, India exported 96.5% of items in the world's top imports at 4 digit level and 83.2% at 6 digit level in terms of numbers. But, in value terms, both these form only 1.6%. In the USA's top 100 import items at 4 digit level in 2015, India's exports were more than or equal to US$ 500 mn only in 8 items. In Hong Kong's top 100 import items at 4 digit level in 2015, India's exports were more than or equal to US$ 200 mn only in 4 items.

Breakdown of total exports: By commodity group (FY17)



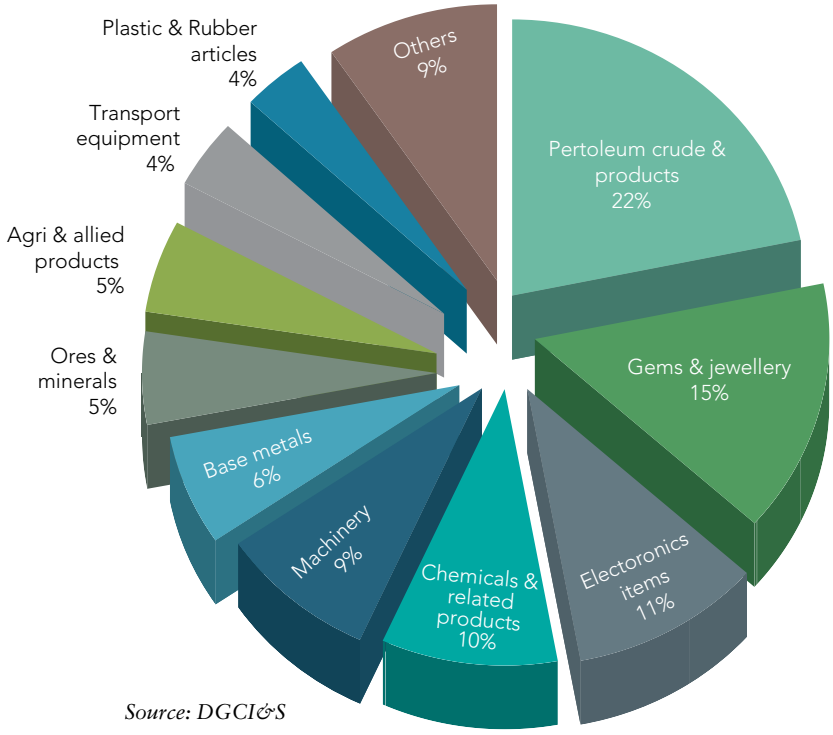
Source: DGCI&S

By main destination (FY17)



Source: DGCI&S

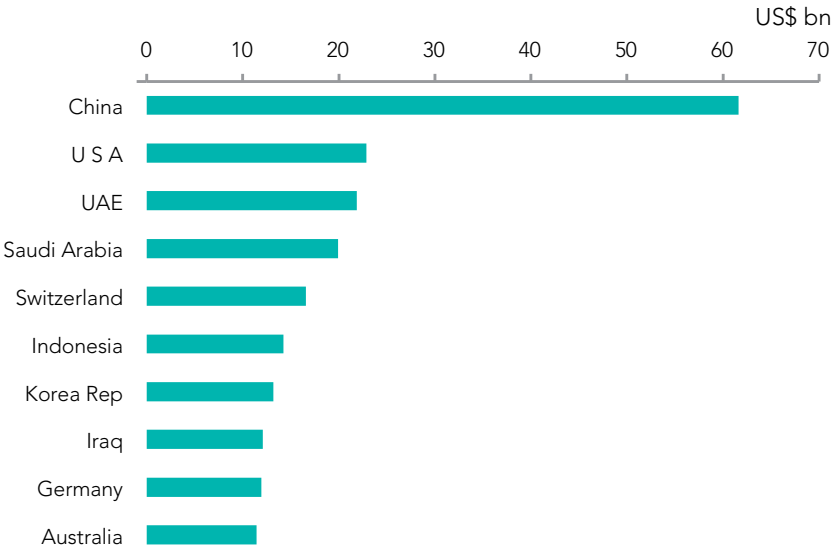
Breakdown of total Imports: By commodity group (FY17)



Source: DGCI&S

There has been a structural shift in India's exports, away from primary, agricultural and traditional exports towards more value added manufactured and technology-based items such as engineering goods, refinery products, pharmaceuticals, etc

Breakdown of total imports: By destination (FY17)



Source: DGCI&S

The Government aims to increase India's exports of merchandise and services to approximately US$ 900 bn by 2019-20 and to raise India's share in world exports from 2% to 3.5%. This ambitious goal could be achieved with some major strategies and reforms. Some such strategies and policy reforms are given below:

Key strategies and policy reforms to increase exports

Demand based export product diversification

- There is a mismatch in the ranks of items in world's top imports and ranks of India's exports of these items to the world
- Shift the focus from exporting what we can (or supply based), to items for which there is world demand and where we also have basic competence

Rationalisation of tariffs

- India's average most-favoured nation (MFN) applied tariffs are relatively higher than other emerging economies and particularly all the BRICS economies except Brazil and India's bound tariffs are higher than all these countries. Yet, realised tariffs are very low and even lower than the applied tariffs of many ASEAN countries due to the large duty concessions and exemptions given under the Foreign Trade (FT) policy
- There is scope for reducing average applied tariffs by selectively reducing tariffs across many lines, while retaining higher tariffs for sensitive and important items

Trade facilitation

- The documents and procedures related to exports have decreased from around 129 pages in 2012 to around 100-108 pages in 2016. Yet, further streamlining is needed to reduce the number to the barest minimum
- Multiple compliance requirements, both statutory and administrative, need to be reduced along with judicial reforms with time limit for disposal of litigations

Streamlining export promotion schemes

- Streamlining Export Promotion Schemes as many duties have been subsumed under GST and if tariffs are reduced to realised or near realised levels, some export promotion schemes can be phased out. The duty drawback rates can also be revised downwards. The revenue saved could be used for export marketing efforts

Export competitiveness

- India's foreign trade policy needs to take into account the difference in India's competitiveness in different markets as revealed by bilateral real exchange rate (BRER) - that measures nominal exchange rate between two countries adjusted for relative price differentials of two countries
- Export competitiveness can also be seen by looking at price competitiveness

Export infrastructure and logistics

- Ports-related infrastructure, which affects trade, needs immediate attention - deepening of drafts of berths; deployment of shore mobile cranes; upgradation and greater use of minor ports, better connectivity from ports to ICDs; reduction in inefficiency at Indian ports; reduction of tariffs for anchorage loading, etc.; better and cheaper port services
- Infrastructure, particularly near ports, has to be improved and last mile connectivity to be provided by improving road connectivity. GPS tracking of export/import goods transported and also goods transported in internal trade can be initiated to ensure smooth and speedy movement of export goods from place of production to the sea ports / airports

To increase India's share in world exports, there is a need to rethink India's overall export strategy

Approach towards FTAs

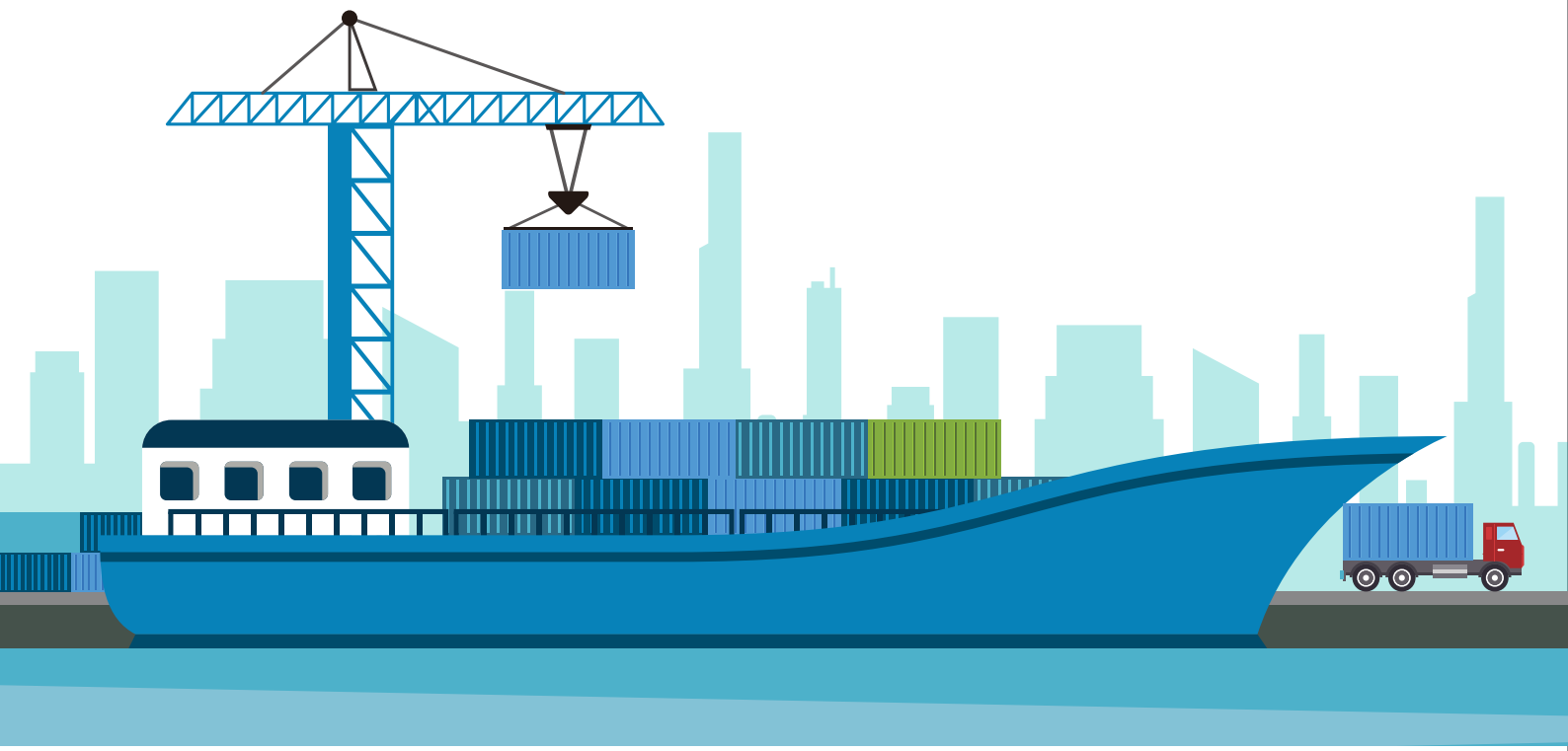
- India's trade strategy needs to take into account the nuances created by FTAs/RTAs of other countries and devise suitable strategies while negotiating new FTAs/RTAs and reviewing existing FTAs/RTAs to keep the tariffs in potential and existing markets for Indian goods atleast on par with our competitors
- Having useful FTAs/CECAs with some major countries while actively expanding engagement with BRICS and ASEAN countries where India enjoys competitive advantage
- Some new useful FTAs could be negotiated by India such as FTA with UK as many stringent conditions of EU may not be applicable now or with the same force and could help India which has been affected by withdrawal of GSP benefits by EU. Sectors like textiles and chemicals could be benefitted with this FTA

Recent trade policy measures

Sustained trade reforms during the last three years have greatly helped in the turnaround of India's exports, in spite of adverse global economic situation. The World Bank in its recent Logistics Performance Index (LPI) for 2016 has ranked India at 35 amongst 160 countries compared to the rank of 54 in 2014, a jump of 19 places. This is the outcome of the various measures taken by the Government to boost exports.

Some of the key trade facilitation measures include:

- Expanded coverage of the Merchandise Exports from India Scheme (MEIS)
- Raising duty drawback rates for select sectors under the interest equalisation scheme
- Setting up of e-market for gems industry
- Trade facilitation measures such as reducing the number of documents, introducing simplified IEC (Importer Exporter Code), doing away with the issuance of physical copy of IEC, sharing export realisation data with states and encouraging states to prepare their export strategies resulting in 17 states preparing their export strategies, simplifying Aayat Niryat forms, etc
- ₹ 6 bn Trade Infrastructure for Export Scheme (TIES) for developing export linked infrastructure in states with a view to promoting outbound shipments. TIES will help create modern infrastructure like last mile connectivity to ports, besides testing labs and certification centres
- Various trade facilitation measures have been taken by Indian Customs such as introduction of Single Window Interface for Facilitating Trade (SWIFT) for ensuring ease of doing business. Under Indian Customs Single Window Project, the importers electronically lodge their Customs clearance documents at a single point only with the customs. It will replace nine separate documents with one Integrated Customs Electronic Declaration



Advancement in India's ranking on World Bank's LPI in 2016 is testimony to the steady progress in key dimensions like customs procedures and tracking & tracing

Status of some recent bilateral/ regional cooperation agreements of India

India - Sri Lanka ETCA

- In December 2015, India and Sri Lanka agreed to start negotiations for a new comprehensive agreement titled 'Economic and Technology Cooperation Agreement (ETCA)'.The scope of the Agreement includes trade in services, investment issues and cooperation in various fields such as technology, customs, standards, etc. apart from trade in goods
- Four rounds of negotiations have been held so far

India - EU BTIA

- Negotiations were launched on 28th June 2007 in the areas of Goods, Services, Investment, Sanitary and Phyto-sanitary Measures, Technical Barriers to Trade, Trade Facilitation and Customs Cooperation, Competition, IPR & GIs etc
- The negotiations were revived with 4 stocktaking meetings in 2016

India - EaEU FTA

- The joint feasibility study group (JFSG) report was finalised by India and EaEU (Eurasian Economic Union) in September, 2016. India has received approval from the competent authority to initiate the FTA negotiations
- EaEU is still in the process of receiving the necessary approval from the competent authorities

India - Thailand CECA

- The 30th round of the Trade Negotiation Committee was conducted in 2016
- The Early Harvest Scheme on 82 items have been implemented

India - Korea CEPA review

- The two sides declared commencement of negotiations for upgrading India-Korea CEPA in 2016
- Two rounds of negotiations for upgrading India-Korea CEPA have been held so far


Kandla
Mundra
Kolkata
Haldia
Paradip
Mumbai
JNPT
Visakhapatnam
Mormugao
New Mangalore
Kamarajar
Chennai
Cochin
V.O.C

Chapter 2
OVERVIEW OF THE PORTS SECTOR IN INDIA

Introduction

India is amongst the largest maritime countries in the world, with over 7,500 kms of coastline spanning 13 maritime states and union territories, and geographically located at the centre of the Indian Ocean. As mentioned in the previous chapter, more than 90% of India's merchandise trade by volume and around 70% by value is moved through maritime transport. Between April 2000 and June 2017, the ports sector has received FDI equity inflows to the tune of US$ 1.64 bn. There are 13 major ports in India and more than 200 non-major ports. Between FY05 and FY16, total cargo traffic handled by Indian ports (major and non-major) has doubled to 1,072.47 mn tonnes from 521 mn tonnes. The 13 major ports play a critical role in India's maritime transport. In terms of number of ports and volumes of traffic handled, the major ports are almost equally split between the west coast and the east coast. Traffic handled by the non-major ports is increasing at a rate much higher than the major ports.

Cargo throughput of major & non-major ports grew by 3.9% (CAGR) during FY11-FY16

While six major ports are located on the West Coast, namely Kandla, Mumbai, JNPT, Mormugao, New Mangalore and Cochin, seven major ports are located on the East Coast, namely Kolkata, Haldia, Paradip, Visakhapatnam, Kamarajar, Chennai and V.O.C. These 13 major ports, along with one non-major port, namely Mundra together account for around 67% of total cargo traffic handled at Indian ports.

Performance overview of major ports & non-major ports

The total cargo throughput handled by the major and non-major ports has witnessed a modest growth (CAGR) of 3.9% during FY11-FY16. The cargo traffic handled by the non-major ports has been increasing steadily (8.1% as compared to 1.2% by the major ports during FY11-FY16).

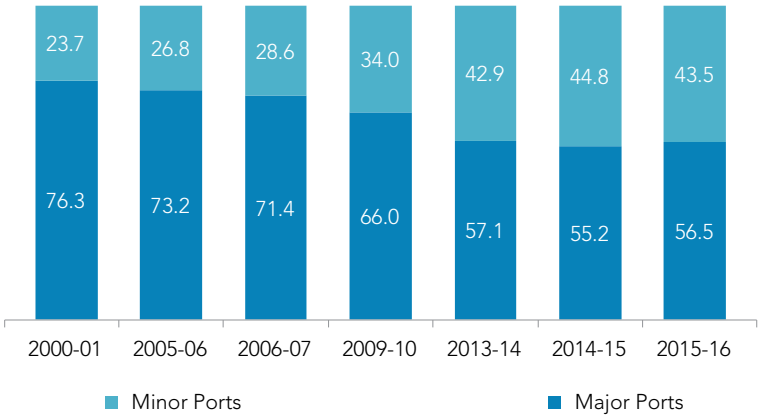
Total cargo traffic handled at Indian ports (mn tonnes)

Period	Major Ports	Non-Major Ports	All Ports
2010-11	570.1	315.4	885.4
2011-12	560.2	353.7	913.9
2012-13	545.8	387.9	933.8
2013-14	555.5	417	972.5
2014-15	581.3	470.9	1,052.2
2015-16	606.4	466.1	1,072.5
CAGR %	1.2	8.1	3.9

Source: Ministry of Shipping

Over the years, the share of non-major ports in the total cargo traffic handled has increased from 23.7% in FY01 to 43.5% in FY16, as shown in the following chart.

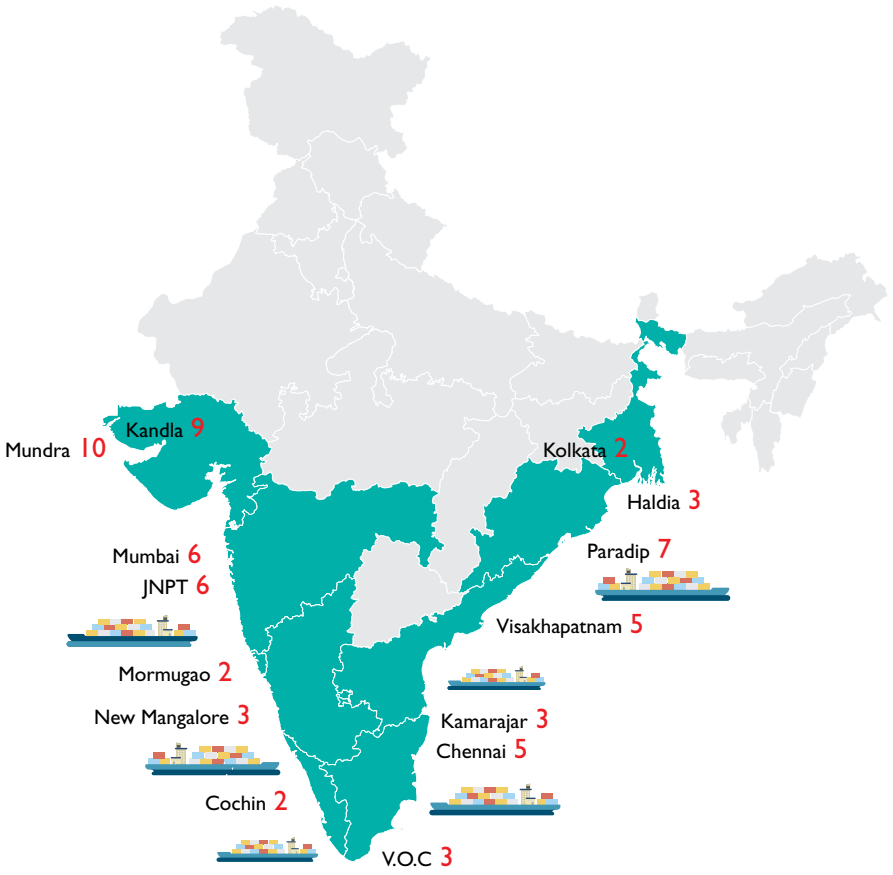
Share of major and non-major ports in cargo traffic handled (%)



Source: Ministry of Shipping

Among the major ports in India, Kandla port handled maximum cargo traffic and its average percentage share was 15.7% during FY11-FY16, followed by JNPT (11.3%), Paradip (11.2%), Visakhapatnam (10.8%), Mumbai (10.3%), and Chennai (9.5%).

Share of major ports* in India's maritime trade (%)



**Including one non-major port, i.e. Mundra; Data for FY16*
Source: Ministry of Shipping

Gujarat, Andhra Pradesh & Maharashtra account for 95% of cargo traffic handled by non-major ports

Three maritime states, namely Gujarat, Andhra Pradesh and Maharashtra accounted for almost 95% of the cargo traffic handled by the non-major ports, since FY14. On the other hand, the share of traffic handled by the state of Goa has declined since FY13, primarily due to the ban on mining activities in Goa, which adversely impacted iron ore output.

Table 2.2: Percentage share of traffic handled by non-major ports by maritime states (%)

States	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16(P)
Gujarat	73.2	73.2	74.2	74.3	71.4	72.9
Andhra Pradesh	13.7	12.9	13.4	14.1	17.7	15.6
Maharashtra	4.7	5.6	6.2	5.9	5.8	6.2
Goa	4.6	4.1	0.9	0.1	0.2	0.1
Tamil Nadu	0.5	0.3	0.2	0.2	0.2	0.2
Karnataka	1	0.2	0.2	0.1	0.1	0.2
Other States/UTs	2.2	3.6	4.9	5.3	4.6	4.9

Note: Percentage share of traffic handled by the maritime state to the total traffic handled by all the maritime states; P: Provisional

Source: Ministry of Shipping

Geographical spread of ports in India

Major Ports: India's major ports located on the west coast accounted for 50% of total cargo traffic handled by the 13 major ports during FY16, while the major ports located on the east coast accounted for the balance 50%. While cargo traffic of major ports on the east coast recorded y-o-y growth of 4.2% during FY16, cargo traffic handled by major ports on the west coast grew by 4.4%.

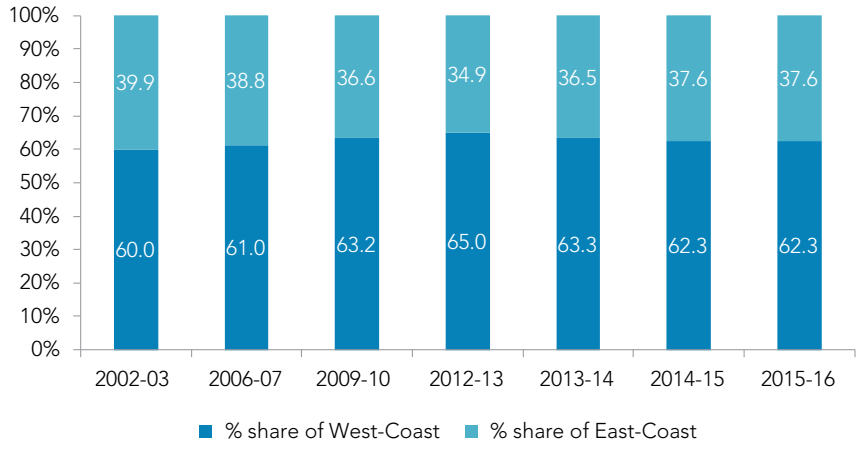
Non-major Ports: Non-major ports handled around 43% of total maritime freight traffic of the country during FY16. Data available for non-major ports in the states of Gujarat, Andhra Pradesh and Maharashtra reveal that these three ports together account for 95% of traffic handled by non-major ports by maritime states/UTs.

Number of non-major ports in India

West Coast	No.	East Coast	No.
Gujarat	46	Tamil Nadu	16
Maharashtra	48	Pondicherry	3
Goa	5	Andhra Pradesh	12
Daman & Diu	2	Orissa	13
Karnataka	9	West Bengal	1
Kerala	17	Andaman & Nicobar	23
Lakshadweep	10		

Source: Ministry of Shipping

Cargo traffic at Indian ports: Share (%)



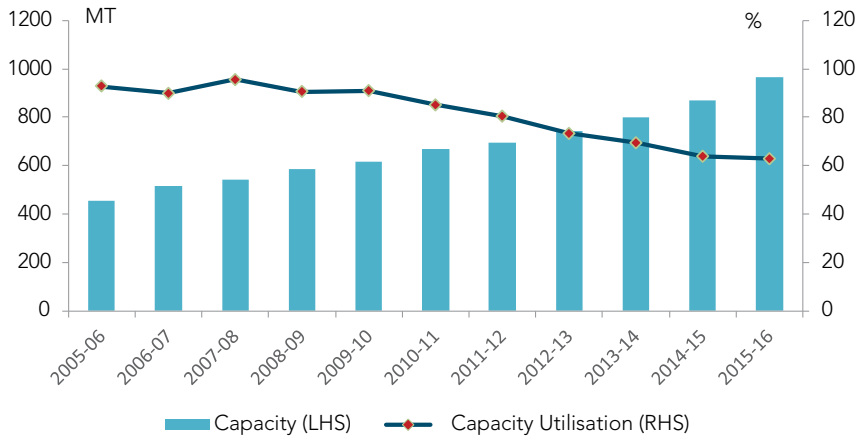
Note: Includes major & non-major ports
Source: Ministry of Shipping

Cargo handling capacities being built to meet future demand

Over the years, there have been several on-going measures towards increasing cargo handling capacity of major ports, through development of ports and improvement in productivity, among others. Capacity at major ports grew to 965.36 MT in FY16, implying a CAGR of 7.8% since FY06. During FY16, 93.84 mn tonnes of capacity was added to the major ports. Against the installed capacity of 965.36 MTPA as on 31st March 2016, the traffic handled by the major ports during FY16 was 606.4 MTPA. However, the

utilisation rate is not evenly distributed among the major ports, with Kandla, Mumbai, JNPT, Kamarajar (Ennore) and Kolkata having much higher utilisation rates than others.

Trend in capacity vs. capacity utilisation



Source: Ministry of Shipping

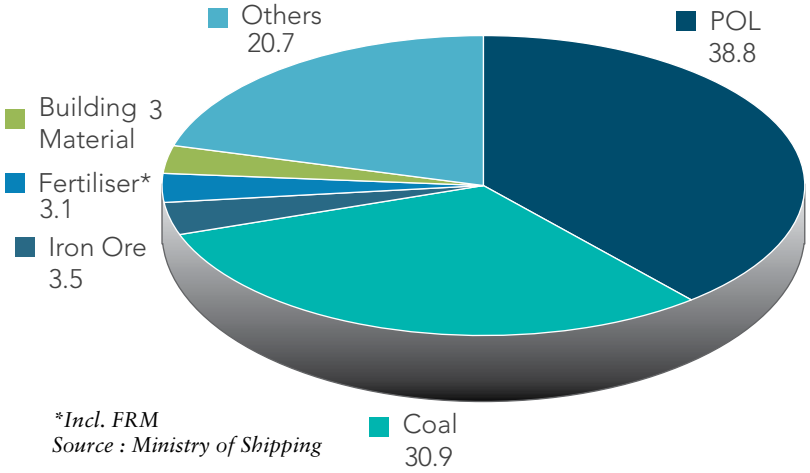
The Government plans to develop non-major/small/medium ports in order to boost coastal shipping in the country, as these ports will also help to reduce congestion on the road and rail network. Future plans and investments (private sector along with government funding) in the maritime sector indicates that substantial capacity is envisioned to come up in the non-major ports, as these are expected to play a major role in traffic handling and evacuation by 2020.

The Government plans to develop non-major/small/ medium ports to boost coastal shipping

Commodity composition of traffic handled by major & non-major ports

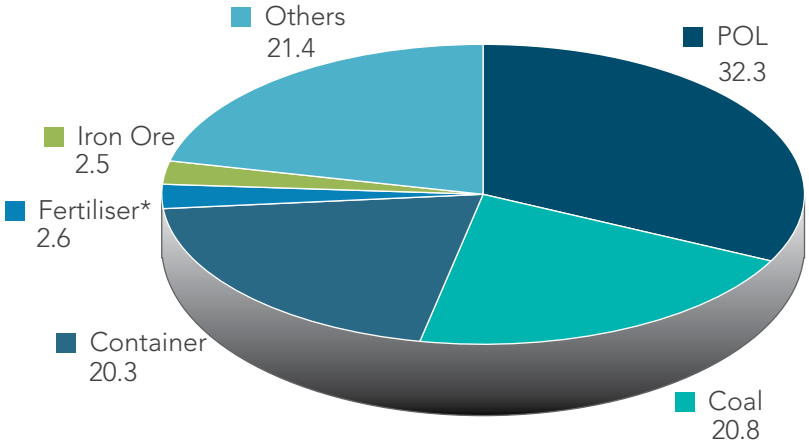
There are five commodities—Coal, Petroleum, oil and lubricants (POL), Iron ore, Fertilisers, and Containers—that account for 80% of the total export-import (EXIM) freight movement through maritime transport. The composition of cargo traffic handled by both major and non-major ports share similar pattern, with POL and coal being the two key commodities. Container traffic accounted for 20.3% share in major ports during FY16. JNPT is the leading major container handling port in the country, followed by the Chennai port. In the non-major ports, container traffic accounts for 10.4% in FY16 (shown under 'others' in the chart titled Non-major ports: Commodity composition of traffic handled), and has been increasing from 6.4% since FY13. Gujarat accounts for 95% of the containerised cargo among the non-major ports by maritime states.

Non-major ports: Commodity composition of traffic handled (%)



**Incl. FRM*
Source : Ministry of Shipping

Major ports: Commodity composition of traffic handled (%)



*Note: Data is for 2015-16; *Incl. FRM*
Source: Ministry of Shipping

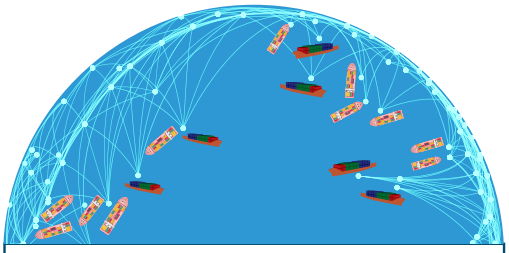
Investments planned in the sector

With the changing nature of global trade and increasing importance of emerging economies, maritime trade and port-led development has assumed significant importance in many countries, including India. While maritime sector has been the backbone of India's trade and has grown manifold over the years, logistics cost remains very high. Moreover, Indian ports still have to address infrastructural and operational challenges; and last mile connectivity to the ports is a major bottleneck in smooth movement of cargo to/from the hinterland.

The Government of India's Sagarmala Programme, a mega integrated development initiative, is aimed at reducing logistics cost for EXIM. It aims towards port modernisation and capacity augmentation, efficient and speedy hinterland evacuation, port-led industrialisation and coastal community development. Under the Programme to promote port-led development, a master plan has been formulated for the 13 major ports. 142 port capacity expansion projects with an estimated cost of ₹ 914.34 bn and capacity creation of 884 MMTPA have been identified in this master plan for implementation over the next 20 years. Out of these, 58 projects with project cost of approximately ₹ 287.67 bn have been approved.

Statistical Profile of Major Ports in India

Statistical Profile: 13 major ports

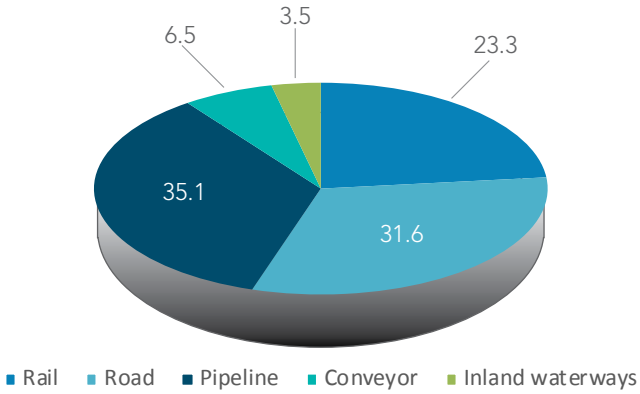


Growth in total traffic **2.0%** CAGR (FY12 - FY16)

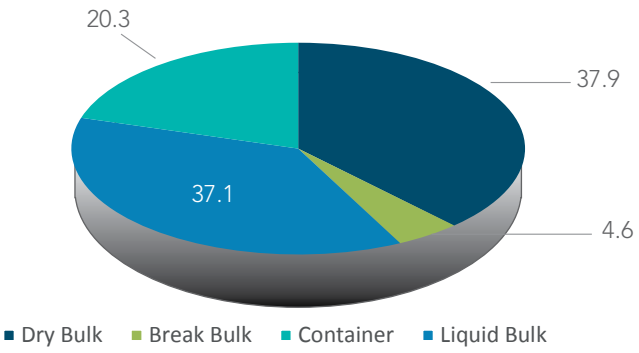
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	195.9	32.3	3
Iron ore	15.4	2.5	-29.1
Fertilisers	15.9	2.6	-6
Coal	126.1	20.8	12.5
Container tonnage	123.1	20.3	0.6
Others	130.1	21.5	5.2

Modal split of traffic (%)



Share in total traffic (%)



Infrastructure

No. of berths	
POL	47 +2 BJs+9 SBM
Iron ore	8 + 3 Transhippers
Coal	12
Fertilisers	5
Container	28
General/ Break bulk	146
Total	246 2 BJs + 9 SBM + 3 Transhippers"

Note: BJ=Barge Jetty; SBM=Single Buoy Mooring

Labour snapshot

Employee* strength (Nos.)	38,559
Mandays lost due to stoppage of work	17,174
Cost per employee (₹ lakh)	7.58
Labour productivity** (in tonnes)	955@

*including Officers;**Output per gang shift
@ Average of the major ports excluding JNPT

Storage

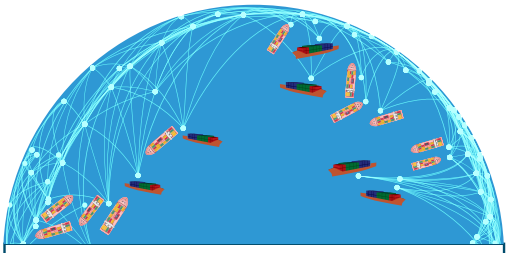
Particulars	Storage capacity
In sqm	17,416,677
In tonnes	3,069,379
In TEUs	4,125
In Ground slots	7,629
Liquid storage (In KLs)	7,830,740

Cargo handling equipment

Equipment	Number
Mobile cranes	33
Wharf cranes	59
Quay cranes (Container)	52
Yard cranes (Container)	182
Trucks & Reach stacker	132
Tractors & Trailers	512
Shovel dozer, Pay loader, Excavator, etc	24
Locomotive	55

Source: IPA

Kandla

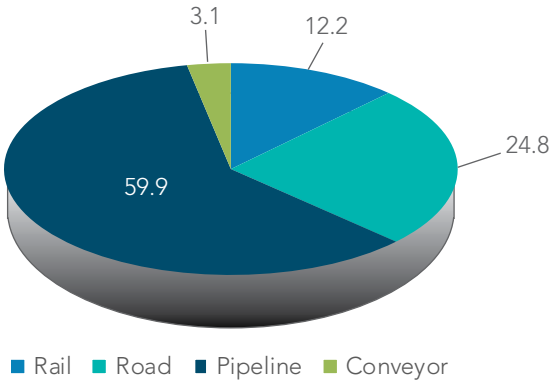


Growth in total traffic **4.9%** CAGR (FY12 - FY16)

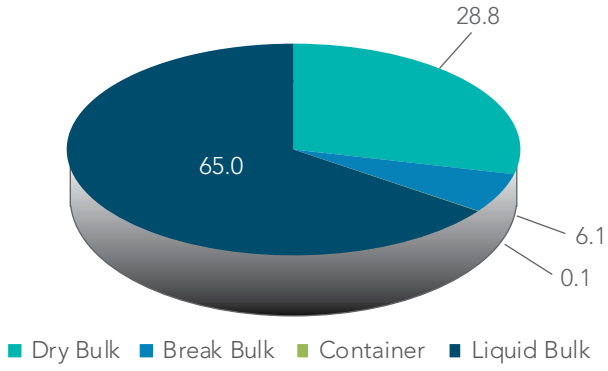
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	55.6	55.6	4.3
Iron ore	1.0	1.0	-1.0
Fertiliser	4.5	4.5	-7.0
Coal	15.0	15.0	37.3
Container tonnage	0.1	0.1	-62.4
Others	23.9	23.9	2.7

Modal split of traffic (%)



Share in total traffic (%)



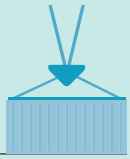
Infrastructure

Berths	Draft (m)
25 + 3 SBM*	9.0 - 16.2

Note: * In addition, 4 bulk cargo jetty at Tuna Tekera

Storage

Particulars	Storage capacity
Area (in sqm)	1,868,970
Liquid storage	2,375,000 KLs



Labour snapshot

Employee* strength (Nos.)	2,887
Mandays lost due to stoppage of work	466
Cost per employee (₹ lakh)	N.A.
Labour productivity (in tonnes)	1,267

*Including Officers

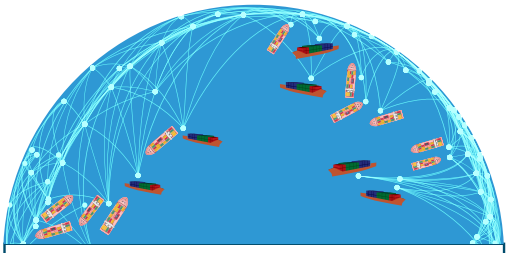
Cargo handling equipment

Equipment	Number
Mobile cranes	N.A.
Wharf cranes	16
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	9
Tractors	3
Trailers	1
Shovel dozer, Pay loader, Excavator, etc	2
Locomotive	N.A.

N.A. : Not available

Source: IPA

Mumbai

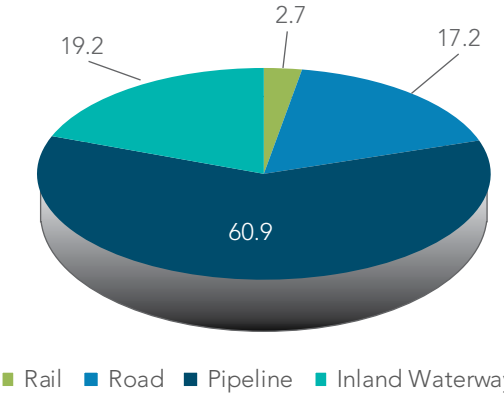


Growth in total traffic **2.1%** CAGR (FY12 - FY16)

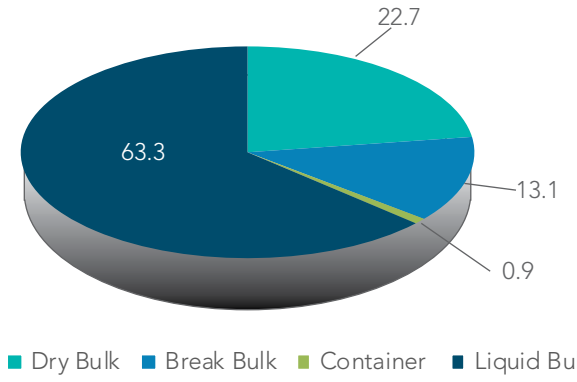
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	36.3	59.4	2.2
Fertiliser	0.4	0.7	2.1
Coal	3.5	5.6	-5.5
Container tonnage	0.5	0.9	-0.6
Others	20.4	33.4	3.8

Modal split of traffic (%)



Share in total traffic (%)

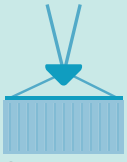


Infrastructure

Berths	Draft (m)
33	7.0-14.3

Storage

Particulars	Storage capacity
Area (In sqm)	8,17,731
Liquid storage	5,05,415 KLs + 5,94,964 t
Ground slots	6,129



Labour snapshot

Employee* strength (Nos.)	10,365
Mandays lost due to stoppage of work	6,862
Cost per employee (₹ lakh)	6.93
Labour productivity (in tonnes)	286

*Including Officers

Cargo handling equipment

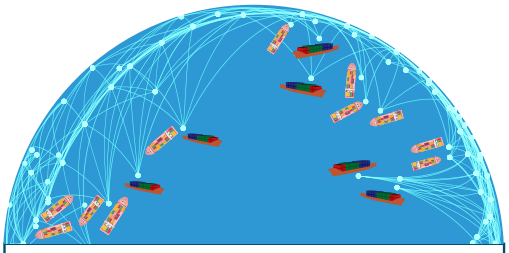
Equipment	Number
Mobile cranes	5
Wharf cranes	11
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	34*
Tractors	5
Trailers	N.A.
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	4

Notes : *Inclusive of 10 electric forklifts trucks for departmental use; In addition, Floating crane: 1

N.A. : Not available

Source: IPA

JNPT

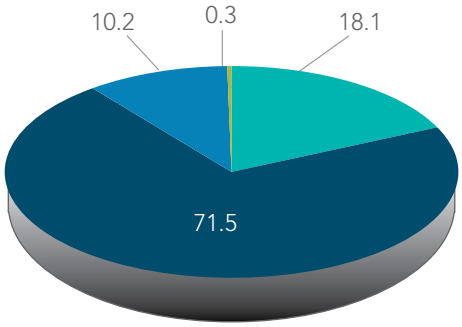


Growth in total traffic **-0.7%** CAGR (FY12 - FY16)

Commodity-wise cargo traffic handled (2015-16)

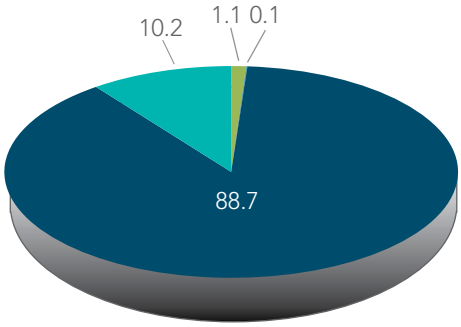
Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	4.1	6.4	-4.5
Container tonnage	56.8	88.7	-0.6
Others	3.1	4.9	5.2

Modal split of traffic (%)



Rail ■ Road ■ Pipeline ■ Inland Waterways

Share in total traffic (%)



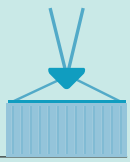
Dry Bulk ■ Break Bulk ■ Container ■ Liquid Bulk

Infrastructure

Berths	Draft (m)
12	8.0-16.5

Storage

Particulars	Storage capacity
Area (in sqm)	5,304,829
Liquid storage	1,489,683 KLs



Labour snapshot

Employee* strength (Nos.)	1,638
Mandays lost due to stoppage of work	645
Cost per employee (₹ lakh)	12.08
Labour productivity (in tonnes)	N.A.

*Including Officers

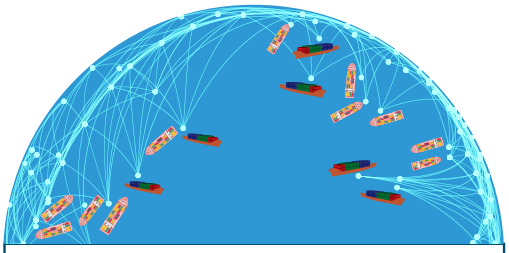
Cargo handling equipment

Equipment	Number
Mobile cranes	2
Wharf cranes	N.A.
Quay cranes (Container)	9 22*
Yard cranes (Container)	23 91*
Trucks & Reach stacker	13 10*
Tractors	20+128 (Hired)
Trailers	270*
Shovel dozer, Pay loader, Excavator, etc	4**
Locomotive	N.A.

Note: * Under BOT operators
** 2 Pay loader, 1 Excavator, 1 JCB
N.A. : Not available

Source: IPA

Mormugao

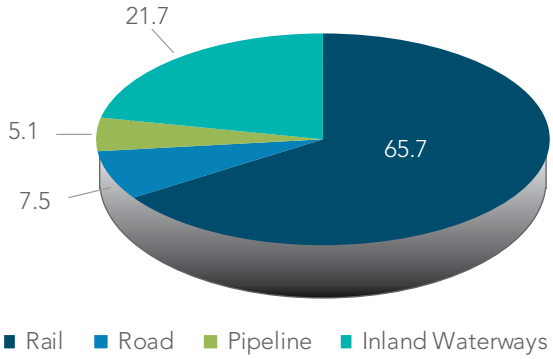


Growth in total traffic -14.6% CAGR (FY12 - FY16)

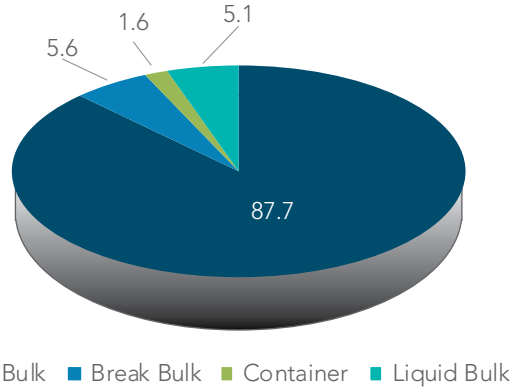
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	0.6	2.7	-11.8
Iron ore	4.0	19.1	-39.4
Fertiliser	0.2	1.1	24.4
Coal	11.5	55.5	14.0
Container tonnage	0.3	1.7	10.5
Others	4.1	20.0	27.9

Modal split of traffic (%)



Share in total traffic (%)

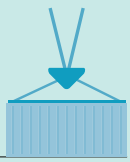


Infrastructure

Berths	Draft (m)
7+ 3 Transhippers	13.1-14.1

Storage

Particulars	Storage capacity
Area (in sqm)	350,012
Liquid storage	149,460 KLs 27,500 MT



Labour snapshot

Employee* strength (Nos.)	2,068
Mandays lost due to stoppage of work	1,755
Cost per employee (₹ lakh)	6.13
Labour productivity (in tonnes)	791

*Including Officers

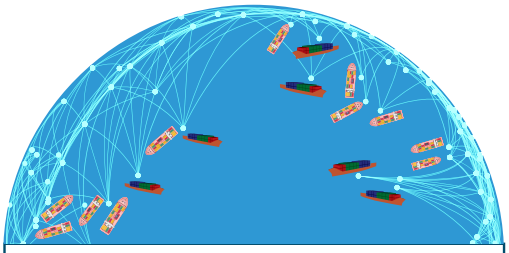
Cargo handling equipment

Equipment	Number
Mobile cranes	1
Wharf cranes	N.A.
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	10
Tractors	N.A.
Trailers	N.A.
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	2

Note : N.A. : Not available

Source: IPA

New Mangalore

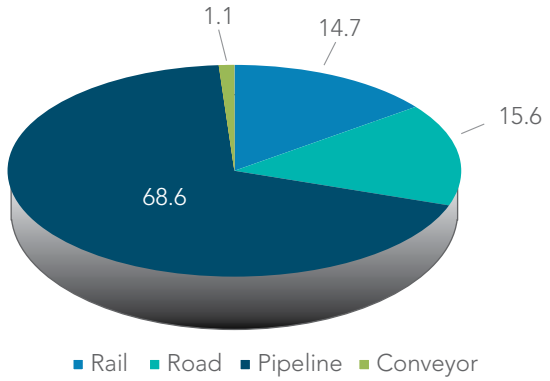


Growth in total traffic **1.9%** CAGR (FY12 - FY16)

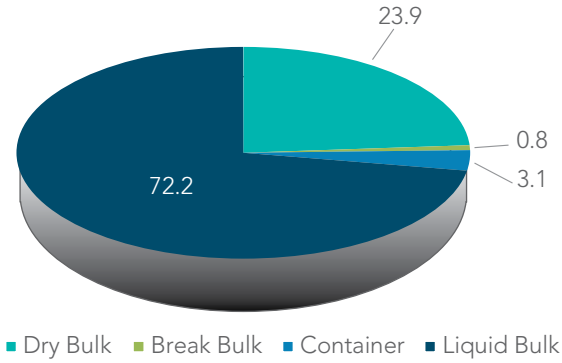
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	23.9	67.3	1.8
Iron ore	0.5	1.4	-36.1
Fertiliser	0.8	2.3	-0.4
Coal	3.3	9.3	-4.7
Container tonnage	1.1	3.1	14.4
Others	5.9	16.6	28.5

Modal split of traffic (%)



Share in total traffic (%)

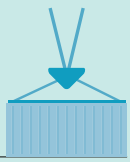


Infrastructure

Berths	Draft (m)
15+ 1 SBM	7.0-14.0

Storage

Particulars	Storage capacity
Area (in sqm)	2,65,132
Liquid storage	206,385 KLs



Labour snapshot

Employee* strength (Nos.)	1,124
Mandays lost due to stoppage of work	760
Cost per employee (₹ lakh)	7.85
Labour productivity (in tonnes)	1,853

*Including Officers

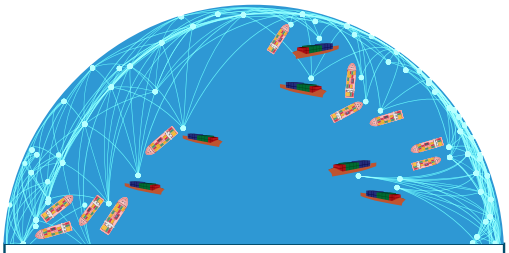
Cargo handling equipment

Equipment	Number
Mobile cranes	1
Wharf cranes	N.A.
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	5$$
Tractors	N.A.
Trailers	N.A.
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	N.A.

Note: $$ Including 1 no. of 10 tonne capacity, 2 nos. of 3 tonnes capacity of forklift trucks and 2 nos. of reach stacker.
N.A. : Not available

Source: IPA

Cochin

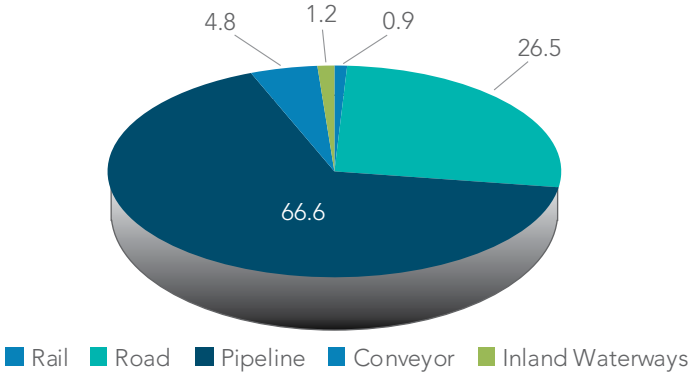


Growth in total traffic **2.4%** CAGR (FY12 - FY16)

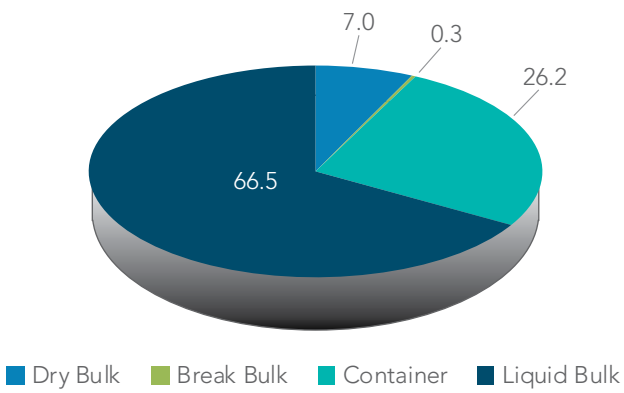
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	13.8	62.3	-0.4
Fertiliser	0.3	1.1	-12.5
Coal	0.1	0.4	26.8
Container tonnage	5.8	26.2	6.0
Others	2.2	9.9	20.7

Modal split of traffic (%)



Share in total traffic (%)



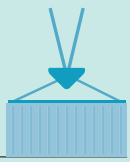
Infrastructure

Berths	Draft (m)
19** + 1 SBM	9.7-16.0

** Includes 1 LNG & 1 UTL berth

Storage

Particulars	Storage capacity
Area (in sqm)	2,70,862
Liquid ctorage	5,94,491 KLs



Labour snapshot

Employee* strength (Nos.)	2,067
Mandays lost due to stoppage of work	1,461
Cost per employee (₹ lakh)	6.9
Labour productivity (in tonnes)	478

*Including Officers

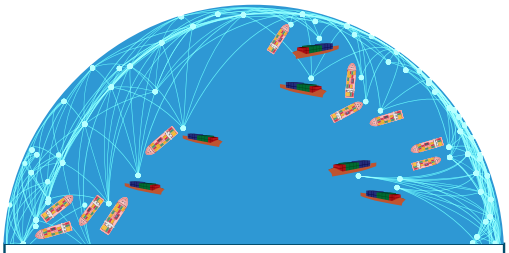
Cargo handling equipment

Equipment	Number
Mobile cranes	1 Port + 2*
Wharf cranes	N.A.
Quay cranes (Container)	4*
Yard cranes (Container)	15*
Trucks & Reach stacker	21 Port + 9*
Tractors	N.A.
Trailers	30*
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	N.A.

Note: *Under BOT operators
N.A. : Not available

Source: IPA

Kolkata

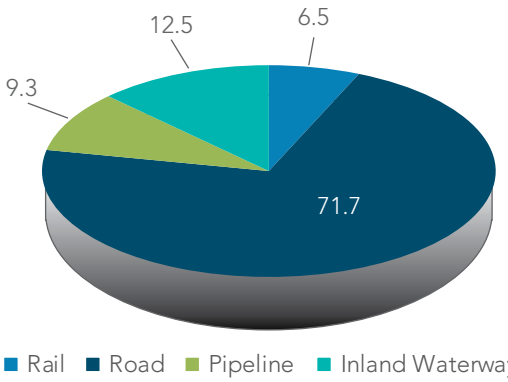


Growth in total traffic **8.2%** CAGR (FY12 - FY16)

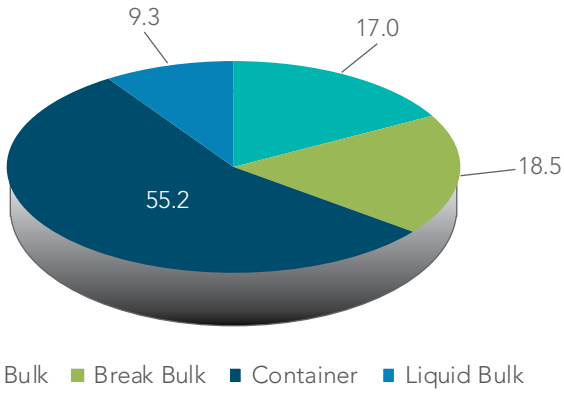
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	0.7	4.0	-0.7
Fertiliser	0.1	0.5	52.6
Coal	0.2	1.2	186.1
Container tonnage	9.3	55.2	8.0
Others	6.6	39.2	8.7

Modal split of traffic (%)



Share in total traffic (%)

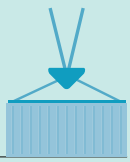


Infrastructure

Berths	Draft (m)
33	7.2-8.7

Storage

Particulars	Storage capacity
Area (in sqm)	5,10,516
Liquid storage	5,54,662 KLs



Labour snapshot

Employee* strength (Nos.)	3,655
Mandays lost due to stoppage of work	N.A.
Cost per employee (₹ lakh)	8.57
Labour productivity (in tonnes)	1,001

*Including Officers

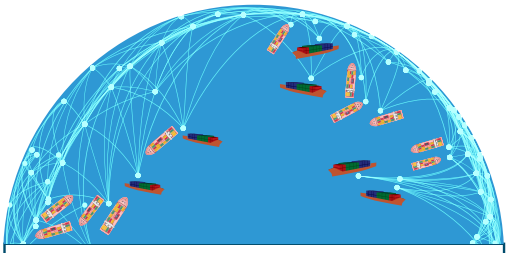
Cargo handling equipment

Equipment	Number
Mobile cranes	7
Wharf cranes	1
Quay cranes (Container)	N.A.
Yard cranes (Container)	4 RTGs
Trucks & Reach stacker	11 FLTs
Tractors	8
Trailers	28
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	2

Note: In addition, lighterage operation of liquid cargo & dry cargo is carried out at Sandheads, Saugor anchorage, Diamond harbour etc.
N.A. : Not available

Source: IPA

Haldia

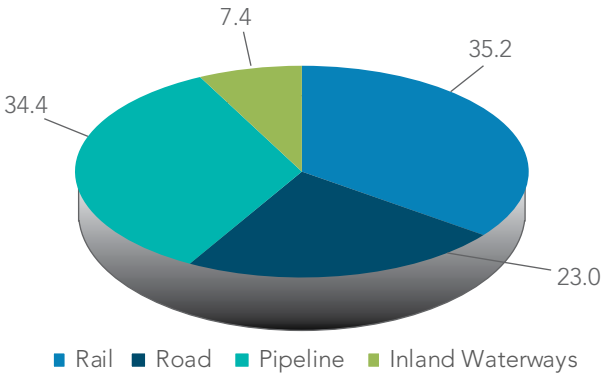


Growth in total traffic **2.0%** CAGR (FY12 - FY16)

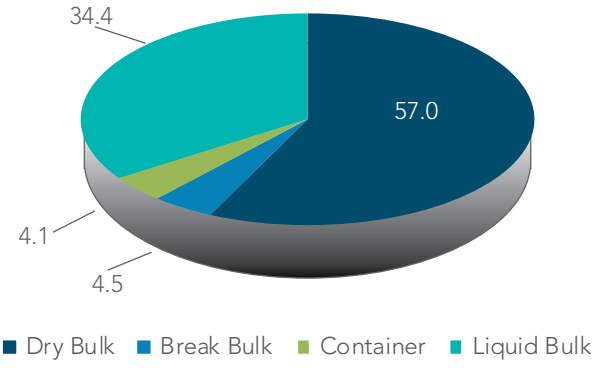
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	7.1	21.1	-2.7
Iron ore	0.9	2.6	-31.5
Fertiliser	0.6	1.9	5.3
Coal	7.3	21.7	-0.04
Container tonnage	1.4	4.1	-14.9
Others	16.3	48.6	16.8

Modal split of traffic (%)



Share in total traffic (%)

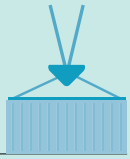


Infrastructure

Berths	Draft (m)
17 + 2 BJs	N.A.

Storage

Particulars	Storage capacity
Area (in sqm)	9,21,840



Labour snapshot

Employee* strength (Nos.)	2,193
Mandays lost due to stoppage of work	269
Cost per employee (₹ lakh)	N.A.
Labour productivity (in tonnes)	846

*Including Officers

Cargo handling equipment

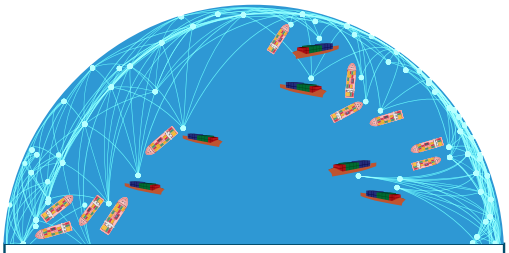
Equipment	Number
Mobile cranes	2
Wharf cranes	N.A.
Quay cranes (Container)	N.A.
Yard cranes (Container)	1
Trucks & Reach stacker	7
Tractors	1
Trailers	5
Shovel dozer, Pay loader, Excavator, etc	12
Locomotive	11

Note: BJ = Barge Jetty

N.A. : Not available

Source: IPA

Paradip

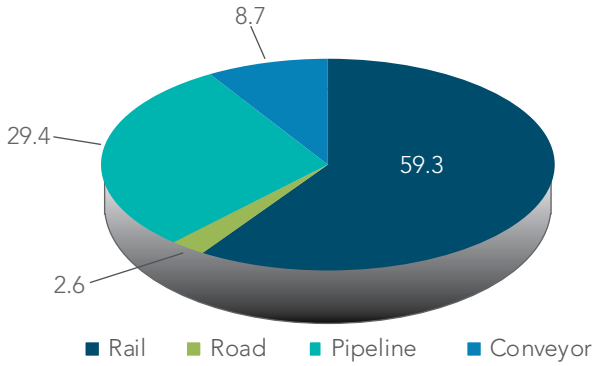


Growth in total traffic **8.9%** CAGR (FY12 - FY16)

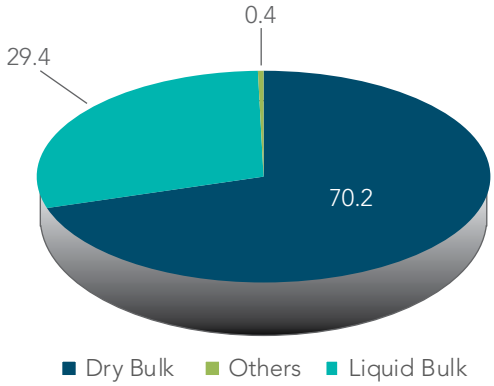
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	20.6	26.9	8.0
Iron ore	2.9	3.8	-18.9
Fertiliser	4.4	5.7	-2.5
Coal	39.5	51.7	15.9
Container tonnage	0.1	0.2	2.6
Others	9.0	11.8	12.2

Modal split of traffic (%)



Share in total traffic (%)

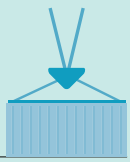


Infrastructure

Berths	Draft (m)
16+3 SBM	11.0-14.5

Storage

Particulars	Storage capacity
Area (in sqm)	19,72,122
Liquid storage	1,432,000 KLs/tonnes



Labour snapshot

Employee* strength (Nos.)	1,454
Mandays lost due to stoppage of work	87
Cost per employee (₹ lakh)	8.3
Labour productivity (in tonnes)	2,222

*Including Officers

Cargo handling equipment

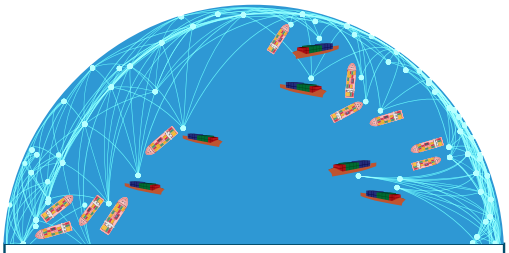
Equipment	Number
Mobile cranes	7^
Wharf cranes	2
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	N.A.
Tractors	N.A.
Trailers	
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	7^^

Note : ^7 mobile harbour cranes are provided by pvt. operator
^^Besides the above 7 nos. of locomotives, another 2 nos. of locomotives are hired from RITES

N.A. : Not available

Source: IPA

Visakhapatnam

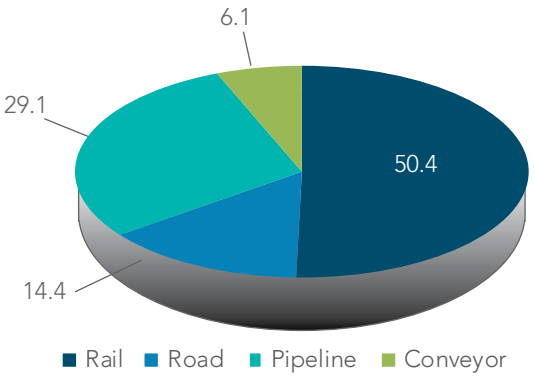


Growth in total traffic **-4.1%** CAGR (FY12 - FY16)

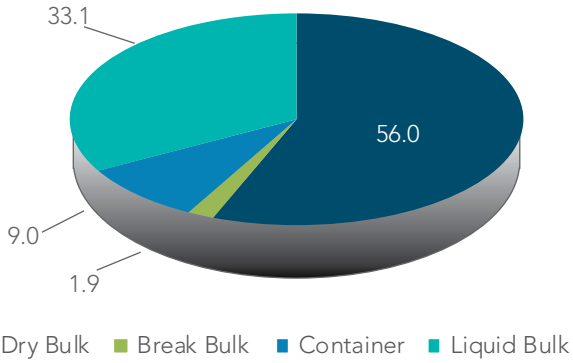
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn Tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	16.9	29.7	-2.1
Iron ore	6.1	10.7	-21.8
Fertiliser	2.8	4.9	-11.5
Coal	8.5	14.9	-4.1
Container	5.1	9.0	5.1
Others	17.6	30.8	6.0

Modal split of traffic (%)



Share in total traffic (%)

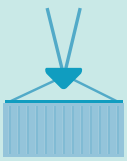


Infrastructure

Berths	Draft (m)
24+ 1 SBM	Inner Harbour: 9.7-14.5 Outer Harbour: 14.0-18.1

Storage

Area	21,21,176 sqm
	2,446,915 tonnes
Liquid storage	1,78,398 KLs
Open	4,000 TEUs
Ground slots	1,500
Warehouse	100-125 TEUs



Labour snapshot

Employee* strength (Nos.)	4,158
Mandays lost due to stoppage of work	N.A.
Cost per employee (₹ lakh)	7
Labour productivity (in tonnes)	713

*Including Officers

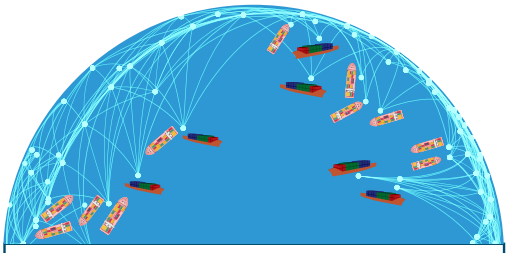
Cargo handling equipment

Equipment	Number
Mobile cranes	2
Wharf cranes	18
Quay cranes (Container)	N.A.
Yard cranes (Container)	N.A.
Trucks & Reach stacker	N.A.
Tractors	N.A.
Trailers	N.A.
Shovel dozer, Pay loader, Excavator, etc	6
Locomotive	18

N.A. : Not available

Source: IPA

Kamarajar

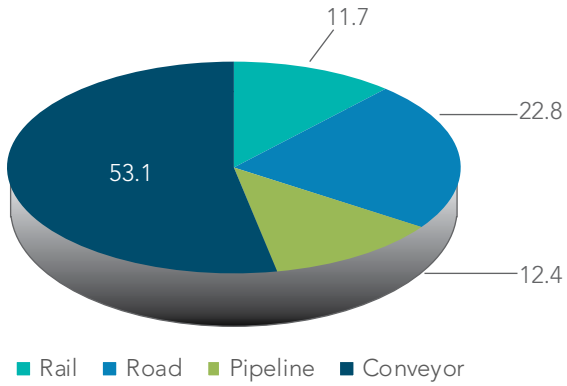


Growth in total traffic **21.1%** CAGR (FY12 - FY16)

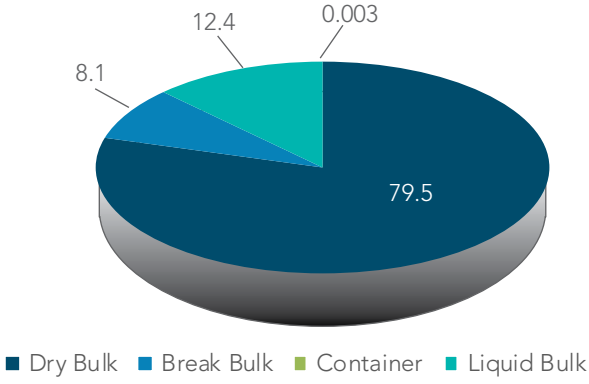
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	3.9	12.1	66.8
Coal	25.6	79.5	18.2
Others	2.7	8.4	19.2

Modal split of traffic (%)



Share in total traffic (%)

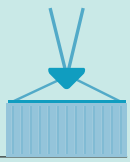


Infrastructure

Berths	Draft (m)
6	12.0-16.0

Storage

Particulars	Storage capacity
Area (in sqm)	1,214,464
Liquid storage	2,54,478 KLs



Cargo handling equipment

Equipment*	Number
Conveyors	2 streams
Shore-based gantry type grab unloader	2
Mobile hopper	1
Temporary hoppers	6

Labour snapshot

Employee* strength (Nos.)	102
Mandays lost due to stoppage of work	N.A.
Cost per employee (₹ lakh)	11.23
Labour productivity (in tonnes)	N.A.

*Including Officers

Note : * The port also has other cargo handling facilities like tipplers

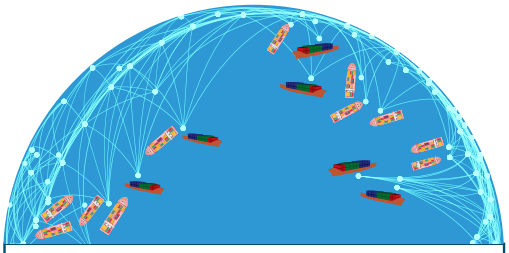
The source for the above data:

1. SICAL website for TNEB coal terminal at Kamarajar port
2. Indian Mining Bureau's Indian Minerals Yearbook 2015

N.A. : Not available

Source: IPA

Chennai

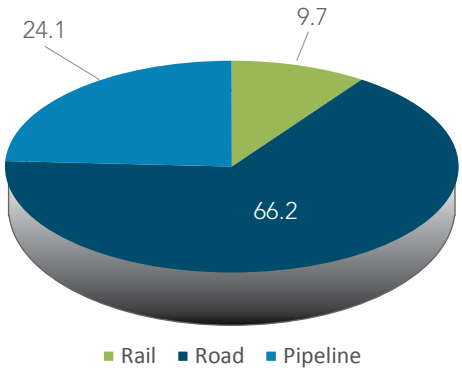


Growth in total traffic **-2.6%** CAGR (FY12 - FY16)

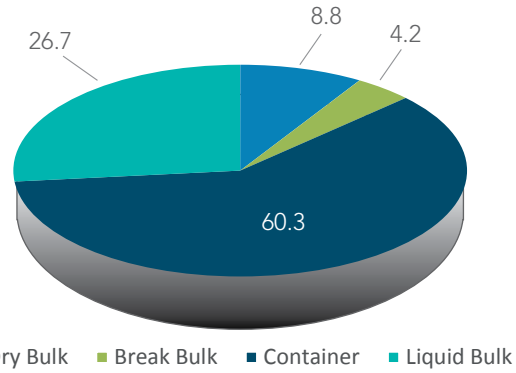
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	11.9	23.8	-2.7
Fertiliser	0.3	0.5	-20.3
Container tonnage	30.2	60.3	0.1
Others	7.7	15.4	-7.8

Modal split of traffic (%)



Share in total traffic (%)

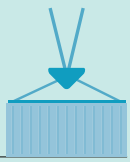


Infrastructure

Berths	Draft (m)
24	8.5-17.4

Storage

Particulars	Storage capacity
Area (in sqm)	6,84,685
Liquid storage	90,768 KLs



Labour snapshot

Employee* strength (Nos.)	5,502
Mandays lost due to stoppage of work	3,899
Cost per employee (₹ lakh)	6.91
Labour productivity (in tonnes)	724

*Including Officers

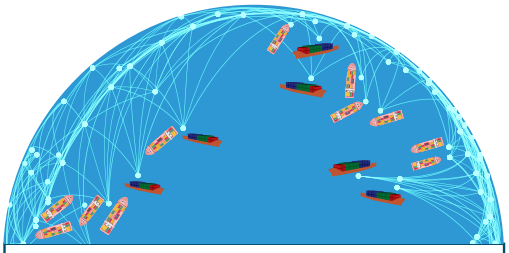
Cargo handling equipment

Equipment	Number
Mobile cranes	3
Wharf cranes	6
Quay cranes (Container)	14*
Yard cranes (Container)	40*
Trucks & Reach stacker	2+7*
Tractors	94*
Trailers	
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	10

Note: * Under BOT operators
N.A. : Not available

Source: IPA

V.O.C

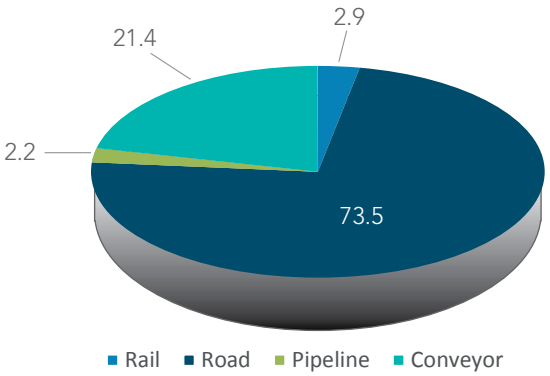


Growth in total traffic **7.0%** CAGR (FY12 - FY16)

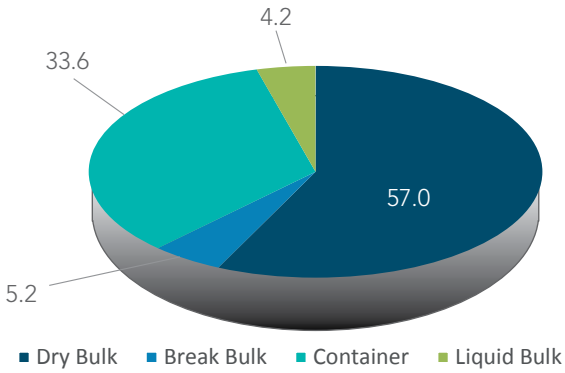
Commodity-wise cargo traffic handled (2015-16)

Description	Traffic handled (mn tn)	Share (%)	CAGR (%) (FY12-FY16)
POL & its products	0.7	1.9	-4.7
Iron ore	0.1	0.2	27.1
Fertiliser	1.5	4.1	-7.1
Coal	11.5	31.2	17.4
Container tonnage	12.4	33.6	7.6
Others	10.7	29.0	1.8

Modal split of traffic (%)



Share in total traffic (%)

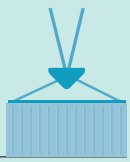


Infrastructure

Berths	Draft (m)
15	8.6-12.8

Storage

Particulars	Storage capacity
Area (in sqm)	9,67,528
Liquid storage	1,46,810 KLs



Labour snapshot

Employee* strength (Nos.)	1,347
Mandays lost due to stoppage of work	970
Cost per employee (₹ lakh)	8.49
Labour productivity (in tonnes)	409

*Including Officers

Cargo handling equipment

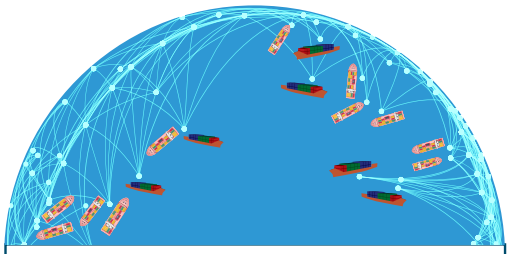
Equipment	Number
Mobile cranes	N.A.
Wharf cranes	5
Quay cranes (Container)	3*
Yard cranes (Container)	8*
Trucks & Reach stacker	3
Tractors	N.A.
Trailers	
Shovel dozer, Pay loader, Excavator, etc	N.A.
Locomotive	1

Note: * Under BOT operators
N.A. : Not available

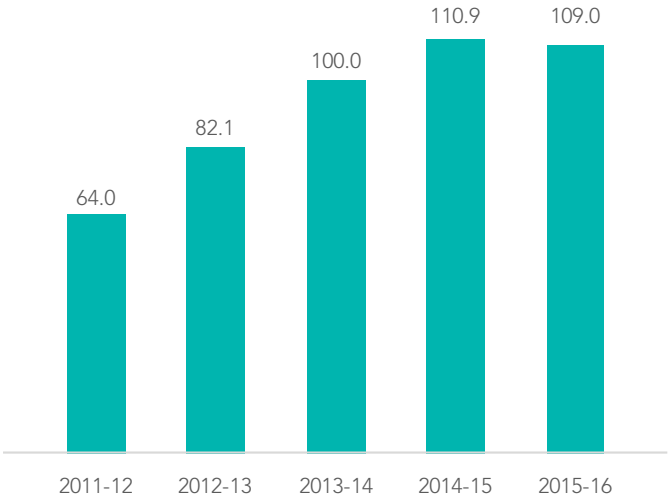
Source: IPA

Mundra

Cargo traffic volume (mn tonnes)



Growth in total traffic **14.2%** CAGR (FY12 - FY16)



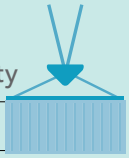
Infrastructure

Berths	Draft (m)
22+ 3 SPM*	14-18

*The SPM for crude oil offers a draft of 32 m

Storage

Particulars	Storage capacity
Total covered area (sqm)	2,03,687
Open stackyards (sqm) (14 Nos.)	7,57,805
Liquid storage	426,000 KLs



Source: Adani ports website and Mundra Port Information Booklet
APSEZ Annual Reports

Cargo handling equipment

Equipment	Number
Mobile cranes	17
Mobile hoppers	2
Conveyor system (Length: 25,026 m)	Import : Capacity 1,500 mtph
2 x 200 mtph bleeding lines operational for storing cargo in bulk	Export : Capacity 1,000 mtph
RMQC	18
RMGC	2
Reach stacker	2
RTGC	48
Top loaders	5
Stack reclaimers	9
Reclaimers	2
Grab ship unloaders	7
Empty container handler	3

The port also has other cargo handling equipment like dumpers, forklifts and payloaders

Chapter 3
PORT PERFORMANCE INDEX

Introduction

Competitiveness of a product in international markets also hinges on how efficiently logistics processes are managed in the domestic market. Organisations that have to face high and uncertain costs at the border and inefficient processes in the logistics chain, especially at the last leg of connectivity i.e. the ports, will eventually find it difficult to compete with organisations in other countries, even if they are able to produce at competitive rates. Seamless supply chain operations have become crucial as supply networks have extended and become more complex and inter-related.

Bottlenecks at seaports could offset the efficiencies of the supply chain network built within the country

Adding to the worries of high logistics cost is the high variation in time taken to trade

India suffers from high and uncertain logistics cost at every juncture as the logistics sector is riddled with several inefficiencies. Adding to the worries of high logistics cost is the high variation in time taken to trade. Inefficiencies that contribute to variation in time taken and cost to trade are non-standardised procedures across ports and even amongst stakeholders in the same port, inadequate infrastructure and lack of seamless connectivity.

While roads, rails, airports and seaports are the vital constituents of the logistics chain, seaports are the major gateway for external trade given their contribution to overall external trade. Seaports contribute to around 90% (by volume) of India's total merchandise trade and any bottlenecks, at this juncture, could offset the efficiencies of the supply chain network built within the country. Predictability of each process in a trade cycle is necessary, as a chain is only as strong as its weakest link. Thus, it becomes indispensable to attend to the inefficiencies present in the port ecosystem. This study covers the port logistics ecosystem of all the major ports in addition to one non-major port Mundra, which together contribute to around 67% of India's total maritime trade. The scope of this study is limited only to container and bulk cargo handled at these ports and does not cover liquid cargo as its evacuation is fully mechanised through pipelines. The objective of the study is to identify various issues and challenges faced by exporters/importers at select ports and to construct a port performance index on the basis of primary and secondary research. Thus, the two main objectives of this study are:

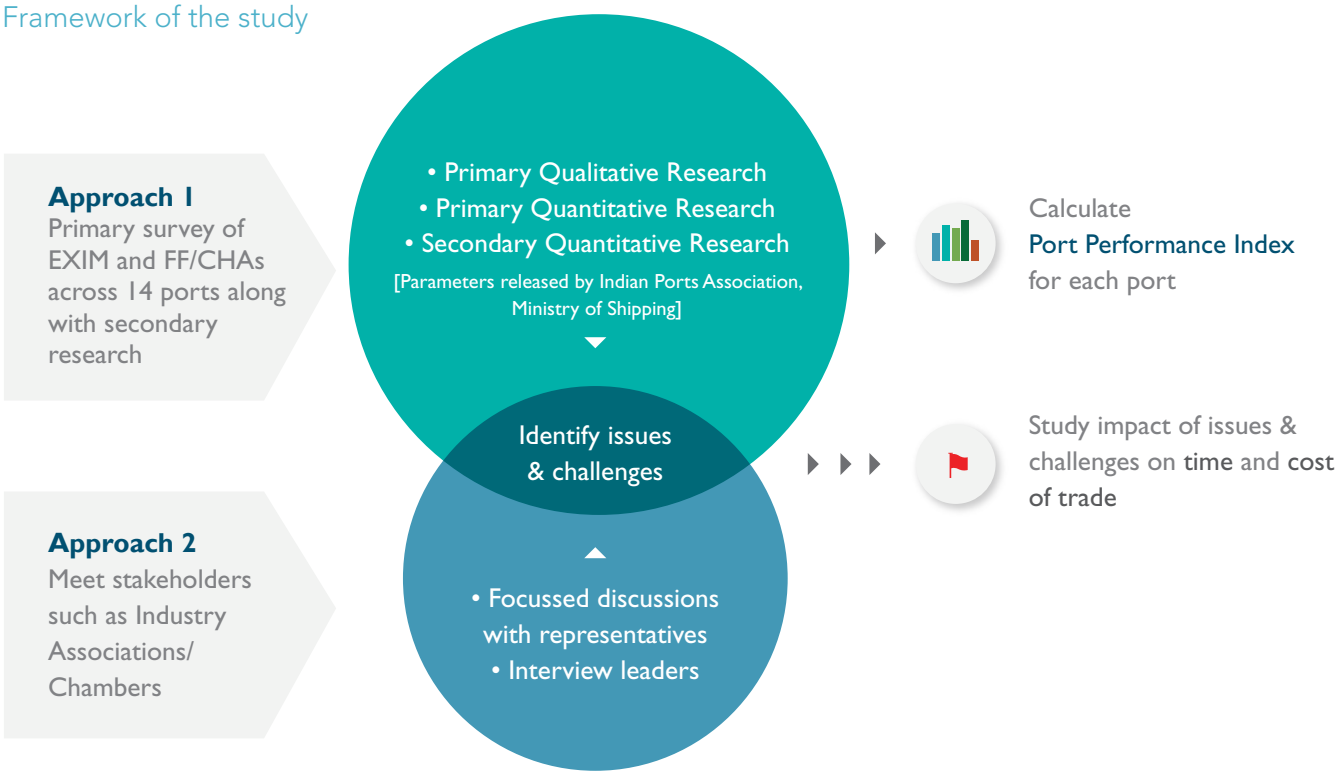
A. To study select issues and challenges faced by exporters/importers, Customs House Agents (CHAs) and freight forwarders at all major ports and one non-major port Mundra

B. To design and construct a Port Performance Index

The Port Performance Index encapsulates the experience of exporters, importers, CHAs and freight forwarders under three broad indices i.e. Port Perception Index (based on primary qualitative questions), Port Outcome Index (based on primary quantitative questions) and Port Efficiency Index (based on secondary quantitative indicators). In totality, 42 indicators under the above three indices cut across different areas of the port logistics environment. These underlying indicators summarise the performance of these 14 ports in areas such as quality of infrastructure, operations, services of staff, tracking and tracing, clearance procedures, timeliness and transactional cost. This chapter tries to provide a comprehensive picture on the ease of doing trade through these 14 ports by highlighting the time taken and cost incurred for key processes in the trade cycle.

The selection of these indicators is based on extensive interviews and consultations with port logistics experts and on secondary research. With comprehensive coverage on all the major ports in India, the Port Performance Index is a unique database as it attempts to combine the qualitative perception of the stakeholders with quantitative outcome based data for broad parameters.

Framework of the study



Methodology

For conducting the survey, a sample of companies across exporters, importers, freight forwarders and customs house agents representing large, medium and small sized firms was selected at random. The respondents were asked to provide qualitative and quantitative data (refer to annexure for the detailed survey questionnaire) on the logistics environment of the port(s) they operated with during the calendar year 2016. The responses were pooled under two buckets – major container ports (JNPT, Mundra, Chennai, Kolkata

and Cochin) and major bulk cargo ports (Kandla, Mumbai, Mormugao, New Mangalore, V.O.C, Kamarajar, Visakhapatnam, Paradip and Haldia). For this purpose, the percentage share of container cargo or dry/break bulk cargo to total cargo handled (excluding liquid cargo) at each port was taken to identify the category of the port. For the ease of presentation, the major bulk cargo ports were further divided into two categories i.e. ports on east coast (Haldia, Paradip, Visakhapatnam, Kamarajar and V.O.C) and west coast (Kandla, Mumbai, Mormugao and New Mangalore).

The composite Port Performance Index was calculated by taking a weighted average of the three sub-indices - Port Perception Index (primary qualitative), Port Outcome Index (primary quantitative) and Port Efficiency Index (secondary quantitative). The indicators under the Port Performance Index consist of both input indicators (quality of port infrastructure, quality of operations, quality of personnel, tracking & tracing and efficiency of clearance procedures) and output indicators (timeliness and logistics cost). Variation in performance across a component indicator reflects the differences in operating environment of a port such as extent of digitisation or might reflect the extent of implementation of a particular reform such as Direct Port Delivery (DPD) etc.

With respect to the primary qualitative based questions, the respondents were asked to rate the indicators on a scale of 1 to 7, where 1 being very poor/very dissatisfied/very difficult and 7 being excellent/very satisfied/very easy. The responses were rescaled to 1 (lowest score) to 100 (highest score). A simple average of all the ratings was taken as the score for each indicator under consideration and then a simple average across indicators was taken as the score for each segment. The perception based index was calculated using a weighted average of all the sub-indicators. The weight assigned to individual indicators under the perception based index is 15 except Tracing and Tracking which was assigned a weight of 10.

With comprehensive coverage on all the major ports in India, the Port Performance Index is a unique database as it attempts to combine the qualitative perception of the stakeholders with quantitative outcome based data for broad parameters

With regards to the primary quantitative based questions, the respondents were asked to provide the actual time taken for each broad activity involved in the import and export process and the cost incurred for each broad activity. Responses were winsorized, with the confidence interval set at 90%, to eliminate spurious outliers. Each response was converted to a scale of 1 (lowest score) to 100 (highest score) using a linear transformation formula and a simple average of all responses was taken as the score for each indicator. The outcome based index was then calculated by taking the simple average of all the indicators wherein both sub indicators were assigned equal weight.

Seven key performance indicators (secondary quantitative parameters) were taken into consideration for calculating the Port Efficiency Index. Data was sourced from the annual publications of the Indian Ports Association (IPA) and the Ministry of Shipping (MoS). The individual indicators were converted to a scale of 1 (lowest score) to 100 (highest score) using the linear transformation and a simple average of all the indicators was taken to construct the efficiency based index. Individual scores of each port should be read standalone and should be compared over its value for the subsequent surveys as each port is defined by its own characteristics with reference to the nature of commodities handled, year of establishment, geographical location and the nature of upgradation undergone over the years.

List of indicators used for construction of Port Performance Index

	Port Performance Index	Questions predecided Answers rated on scale of 1-7 1 = very poor 7= excellent	Weight
1.	Port Perception Index (primary qualitative)		40
A	Quality of port infrastructure		15
1	Berthing		2.1
2	Cargo handling equipment		2.1
3	Safety and security equipment		2.1
4	Warehouse/Storage		2.1
5	Scanning facilities		2.1
6	Testing facilities & laboratories		2.1
7	Quality of IT infrastructure available		2.1
B	Quality of operation		15
1	Loading/Unloading/Transloading		2.1
2	CFS		2.1
3	Warehouse/Storage		2.1
4	Customs		2.1
5	Quality/Standard inspection		2.1
6	Transport related		2.1
7	Level of integration/Co-ordination of various services/Agencies		2.1
C	Quality of personnel		15
1	Port Staff		5
2	Customs Staff		5
3	CFS/Warehouse Staff		5
D	Tracing & tracking your consignment		10
E	Timeliness		15
1	Time taken for customs clearance		3.8
2	Time taken at CFS/Warehouse/Storage including Customs clearance		3.8
3	Time taken from CFS/Warehouse to terminal		3.8
4	Time taken at the terminal		3.8
F	Efficiency of the clearance process		15
1	Customs clearance procedure		7.5
2	Regulatory clearance procedure (including testing labs)		7.5

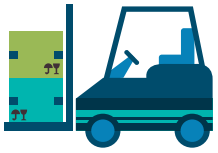
The Port Performance Index encapsulates the experience of exporters, importers, CHAs and freight forwarders under three broad indices i.e. Port Perception Index, Port Outcome Index and Port Efficiency Index

42 indicators under the above three sub-indices cover different areas of the port logistics environment

G	Transactional cost		15
1	Shipping Line		2.5
2	CFS/Warehousing		2.5
3	Customs & documentation		2.5
4	Detention		2.5
5	Demurrage		2.5
6	Misc. charges	Actual data on dwell time of various processes and cost incurred	2.5
2.	Port Outcome Index (primary quantitative)		40
A	Time related: Average time to import/export		50
1	Time taken at terminal		10
2	Time from CFS/Warehouse to terminal		10
3	Time taken at CFS /Warehouse (including Customs clearance)		10
4	Certification procedures other than Customs		10
5	Documentation at port		10
B	Port Logistics Cost (Transaction Cost)		50
1	Shipping Line		-
2	CFS/ICD/Warehousing		-
3	Customs & Documentation		-
4	Detention		-
5	Demurrage		-
6	Misc. Charges	Secondary data on port efficiency released by IPA	-
3.	Port Perception Index (secondary quantitative)		40
A	Average pre-berthing detention		2.9
B	Berth occupancy		2.9
C	Average output per ship berth day		2.9
D	% of idle time at berth to time at working berth		2.9
E	Average turnaround time		2.9
F	Throughput		2.9
G	Capacity utilisation rate		2.9

Profile of the survey respondents

☑ Line of work



39%

CHA/Freight forwarder

30%

Exporter

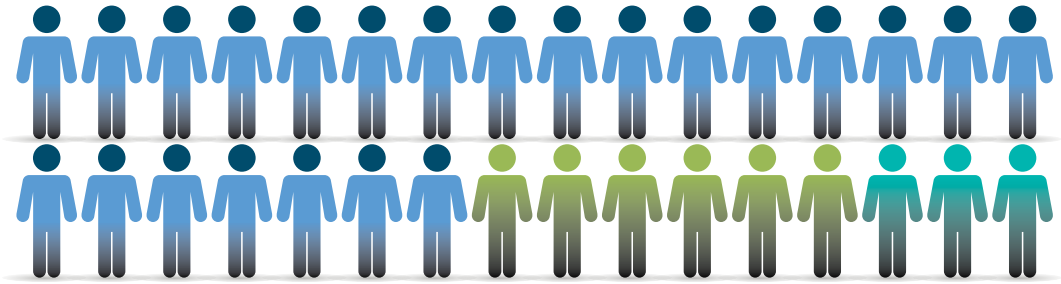
23%

Importer

08%

Exporter & Importer

☑ Employee Size



69% Up to 250

21% 201 to 1,000

10% Above 1,000

☑ Revenue Size

46%

Up to ₹100 crore

30%

₹101 to ₹500 crore

08%

₹501 to ₹1000 crore

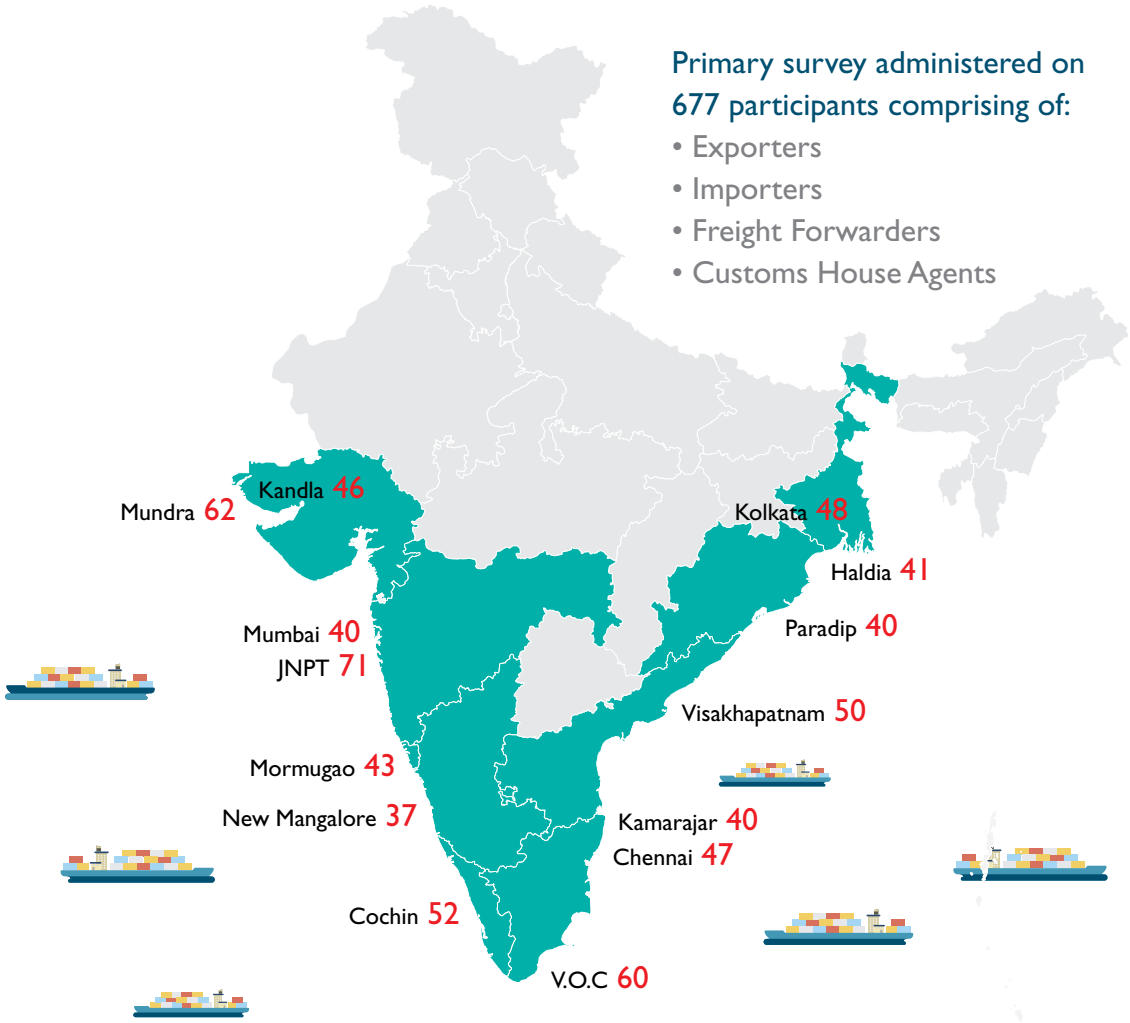
16%

Above ₹1000 crore

Port-wise sample size of the survey and important stakeholders met

Primary survey administered on 677 participants comprising of:

- Exporters
- Importers
- Freight Forwarders
- Customs House Agents



4 ports received 'Good' score, 7 ports received 'Average' score and 3 ports 'Poor' score

Survey of around 700 participants i.e. exporters, importers, CHAs, freight forwarders and industry stakeholders conducted pan India

About 25 Stakeholders met

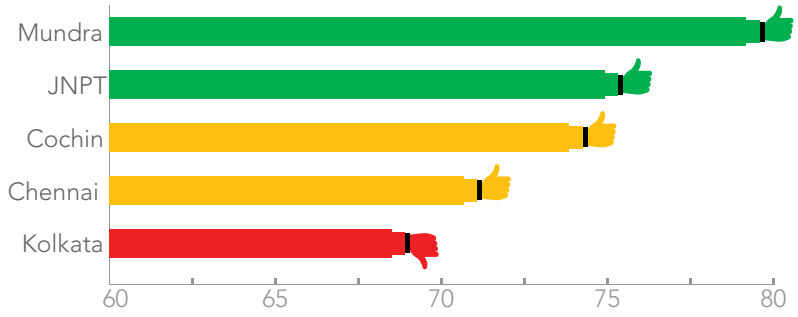
- Federation of Freight Forwarders' Association in India (FFFAI)
- National Association of Container Freight Stations (NACFS)
- Container Freight Stations Association of India (CFSAI)
- Brihanmumbai Custom House Agents' Association (BCHAA)
- Consolidators Association of India (CAI)
- Western India Shippers Association (WISA)
- The Southern India Chamber of Commerce and Industry (SICCI)
- Port Authorities
- Indian Port Association (IPA)
- Customs
- Container Corporation of India Limited (CONCOR)
- Federation of Indian Export Organisations (FIEO)
- Indian Importers Chambers of Commerce and Industry (IICCI)
- Indian National Shipowners Association (INSA)
- Container Shipping Lines Association (CSLA)
- Indian Private Ports and Terminals Association (IPPTA)

Main index: Port performance index

Based on the primary qualitative, primary quantitative and secondary quantitative data, final scores were assigned to all the 14 ports, wherein 4 ports (Mundra, JNPT, Kamarajar, Visakhapatnam) have received 'Good' score; 7 ports (Cochin, Kandla, Paradip, Chennai, Mormugao, New Mangalore and V.O.C) have received 'Average' score and 3 ports (Haldia, Kolkata and Mumbai) have received 'Poor' score. To categorise the scores into good, average and poor, the absolute difference of highest and lowest score was taken and split into 3 equal intervals.

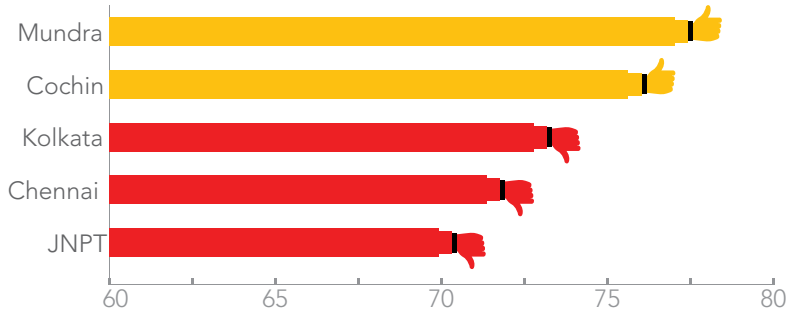
Major Container Ports

Port Performance Index



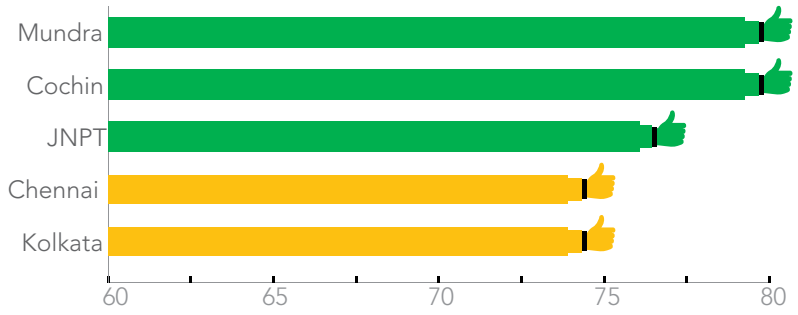
Port Perception Index

(Primary qualitative)



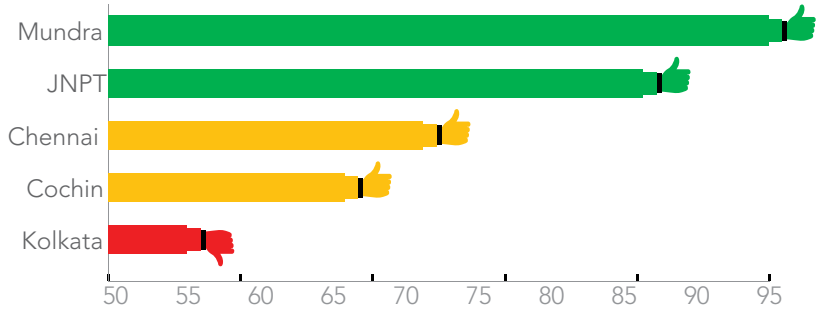
Port Outcome Index

(Primary quantitative)



Port Efficiency Index

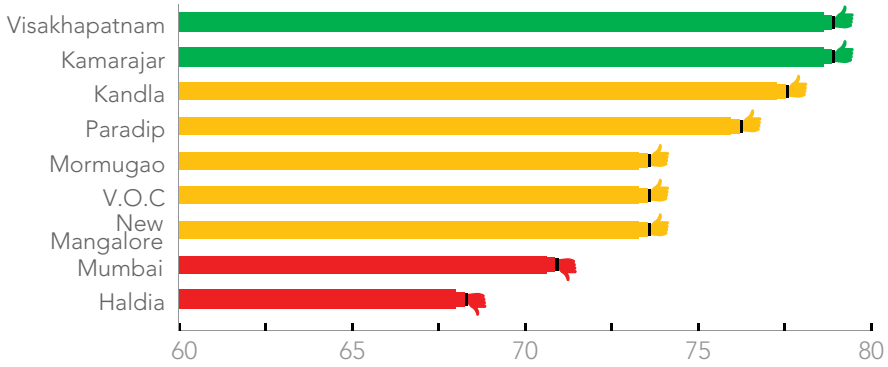
(Secondary quantitative)



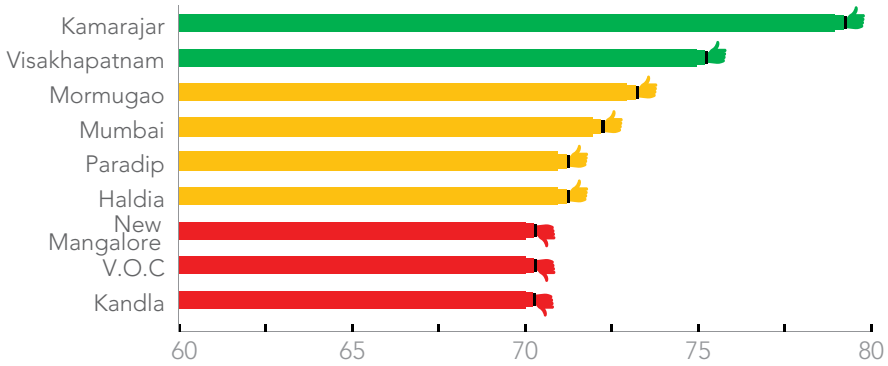
Good
Average
Poor

Major Bulk Cargo Ports

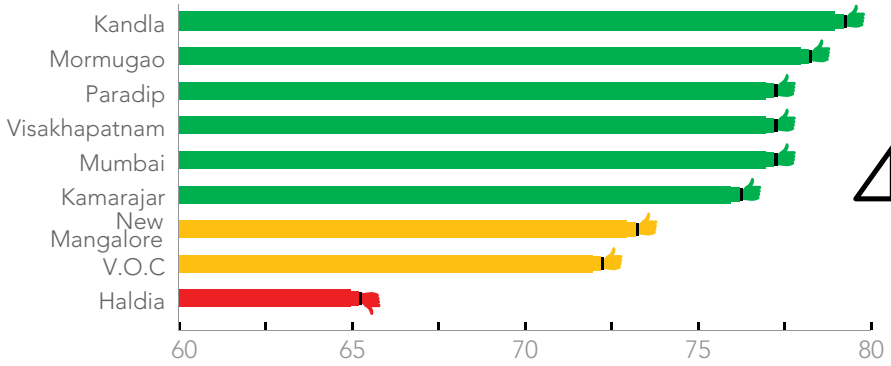
Port Performance Index



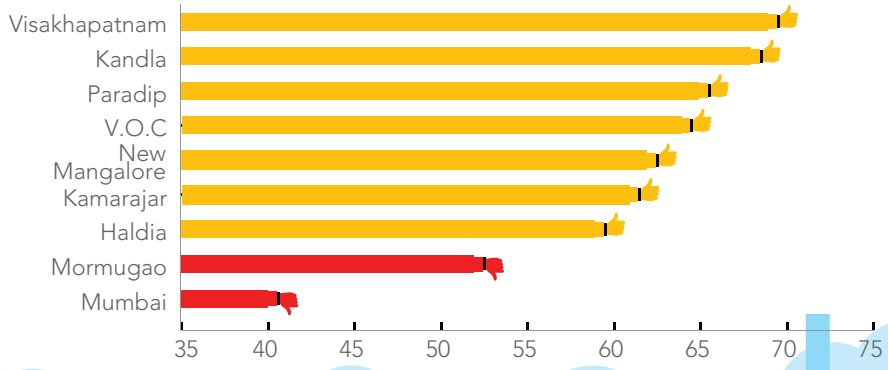
Port Perception Index (Primary qualitative)

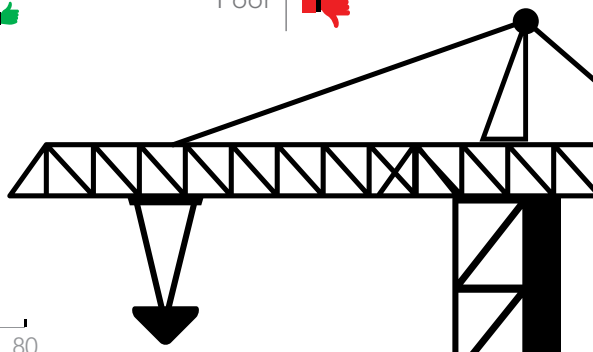


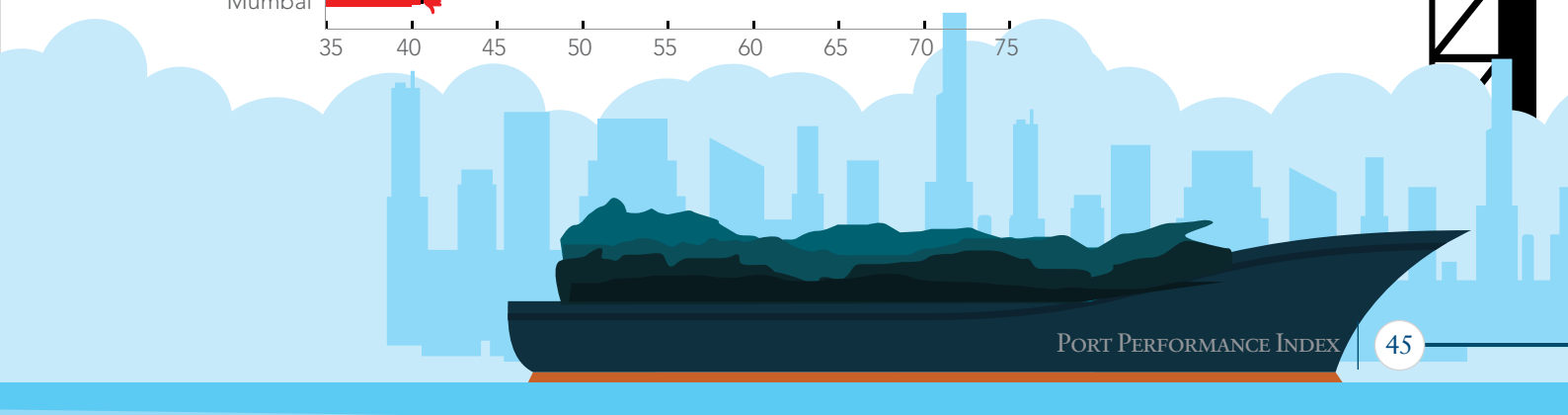
Port Outcome Index (Primary quantitative)



Port Efficiency Index (Secondary quantitative)







Sub index 1: Port outcome index (Primary quantitative indicators)

Quantitative based questions were designed to obtain time and cost related data that the respondents have experienced for each of the pre-defined activities/ operations in the export and import cycle.

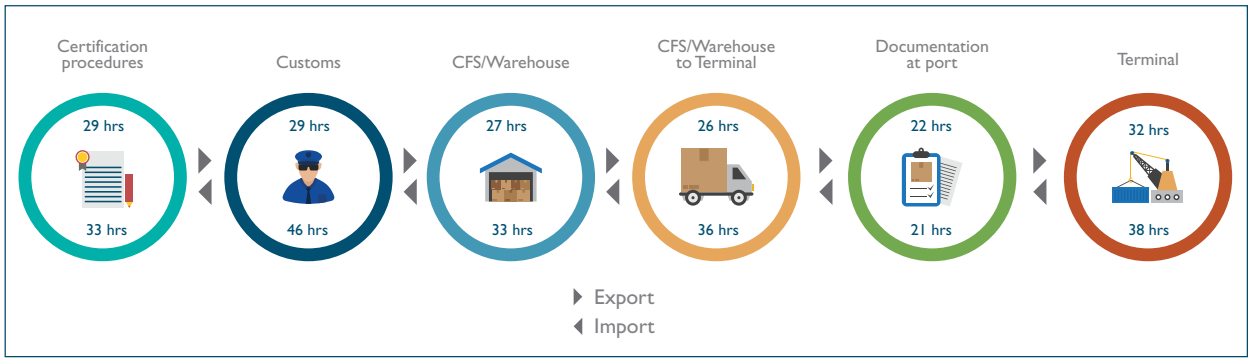
Time taken at port

The survey has collated dwell time for process related activities (documentation, certification procedures and customs clearance), dwell time for operations at establishments (CFS/ warehouse and terminals) and transit time between CFS/warehouse and ports. A score is assigned (as discussed in the methodology section) to the overall time taken at each of the port for each of the above activities/stakeholders/process.

Average dwell time for broad processes

Average time taken for certification procedures other than customs such as obtaining technical certificate clearance, permits & licenses, sanitary & phytosanitary certificate, certificate of origin etc. for exports was 29 hours while the same for imports was 33 hours. Average time taken for customs clearance for exports was 29 hours while the same for imports was 46 hours. Average time taken at CFS/Warehouse which includes time taken for procedures such as stuffing/de-stuffing of cargo, aggregation/segregation of cargo, stacking and sorting etc. for exports was 27 hours while the same for imports was 33 hours. Average time taken from CFS/Warehouse to terminal (for exports) was 26 hours and the average time taken from terminal to CFS/Warehouse (for imports) was 36 hours. Average time taken for documentation at port for exports was 22 hours and the same for imports was 21 hours.

Average time taken at terminal for loading cargo onto the vessel from the time of arrival of cargo at the terminal, for exports, was 32 hours. Average time taken at terminal for unloading cargo from the vessel to evacuation of goods from the terminal, for imports, was 38 hours.



Note: For calculation of dwell time, responses were arranged in descending order (maximum to minimum time taken). The above dwell time is calculated considering the responses of the higher 60% of the respondents.

The operating environment of the ports is beset by several inefficiencies that affect the ease of doing trade at every stage of the cycle. Extensive document requirements, duplication of work (submission of multiple copies of the same documents to different stakeholders) in the absence of a common integrated portal, prevalent usage of hard copies etc. makes the process of documentation/paperwork cumbersome. Frequent breakdowns or slow system speed have resulted in erratic functioning of the digital platforms. Lagged transmission of messages requiring frequent follow-ups at each stage makes timely submission of documents a big challenge. Inadequate port infrastructure increases the dwell time at

the terminal and congestion leads to delayed movement of cargo to and from the ports. The aforementioned issues undeniably increase the overall time taken to trade which is reflected in the below graphs.

Time taken in hours: Export

Process/Port	Chennai	Cochin	Haldia	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Documentation at port	32	13	29	21	9	16	20	12	12	20	13	7	13	16
Certification procedures (other than customs)	33	29	32	30	13	20	41	17	13	26	20	9	21	17
CFS/Warehouse	16	15	26	29	24	28	28	18	20	25	27	13	21	20
Customs	16	10	40	12	33	41	60	27	55	39	15	26	11	24
CFS/Warehouse to terminal	23	12	32	28	15	32	20	13	23	25	19	10	18	21
Terminal	25	17	46	27	19	32	28	18	18	25	35	17	18	45

Time taken in hours: Import

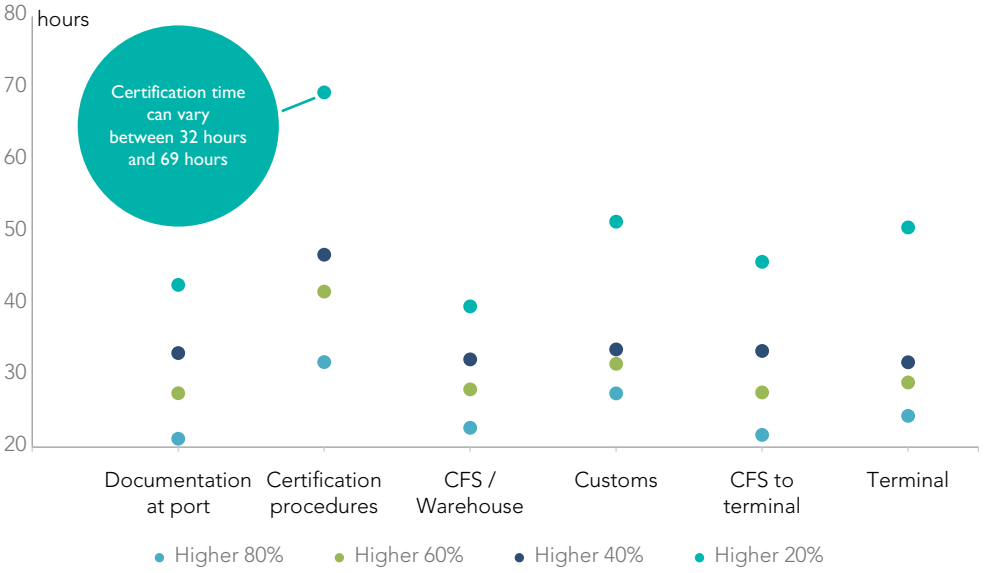
Process/Port	Chennai	Cochin	Haldia	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Terminal	41	28	45	40	17	46	37	10	31	34	22	19	44	28
Terminal to warehouse	39	36	48	39	16	41	44	12	28	34	17	12	33	33
CFS/Warehouse	31	21	35	44	21	27	32	15	25	35	21	17	39	25
Customs	37	20	79	25	47	52	81	54	53	63	21	32	29	45
Certification procedures (other than customs)	48	26	46	53	10	20	35	8	20	33	15	26	24	24
Documentation at port	43	15	33	28	7	19	20	9	13	15	12	8	16	12

Note: While the average dwell time taken for all the ports for each broad process was considered basis higher 60% of respondents, above charts reflect higher 80% of respondents in terms of time taken.

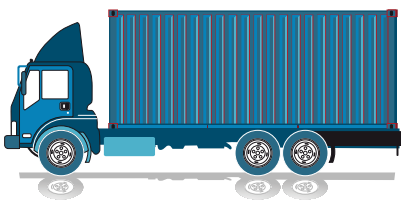
Exports

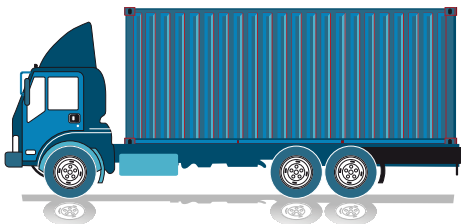
As discussed, one of the major issues is the rate of high variation in time taken to trade due to procedural and operational differences not only across ports but also amongst stakeholders (even for similar activities) at the same port. The survey reveals that the average time taken for documentation at port varies from 21 hours (average of the higher 80% of respondents) to 43 hours (average of the higher 20% of respondents) at the major ports and from 14 to 33 hours at the major bulk cargo ports. Average time taken for certification procedures varies from 32 to 69 hours at the major container ports and from 18 to 36 hours at the major bulk cargo ports. Average time taken at CFS/Warehouse varies from 23 to 40 hours at the major container ports and from 23 to 36 hours at the major bulk cargo ports. Average time taken by customs varies from 27 to 51 hours at the major container ports and from 30 to 46 hours at the major bulk cargo ports. Average time taken from CFS/Warehouse to Terminal varies from 22 to 46 hours at the major container ports and from 20 to 41 hours at the major bulk cargo ports. Average time taken at the Terminal varies from 24 to 51 hours at the major container ports and from 28 to 61 hours at the major bulk cargo ports.

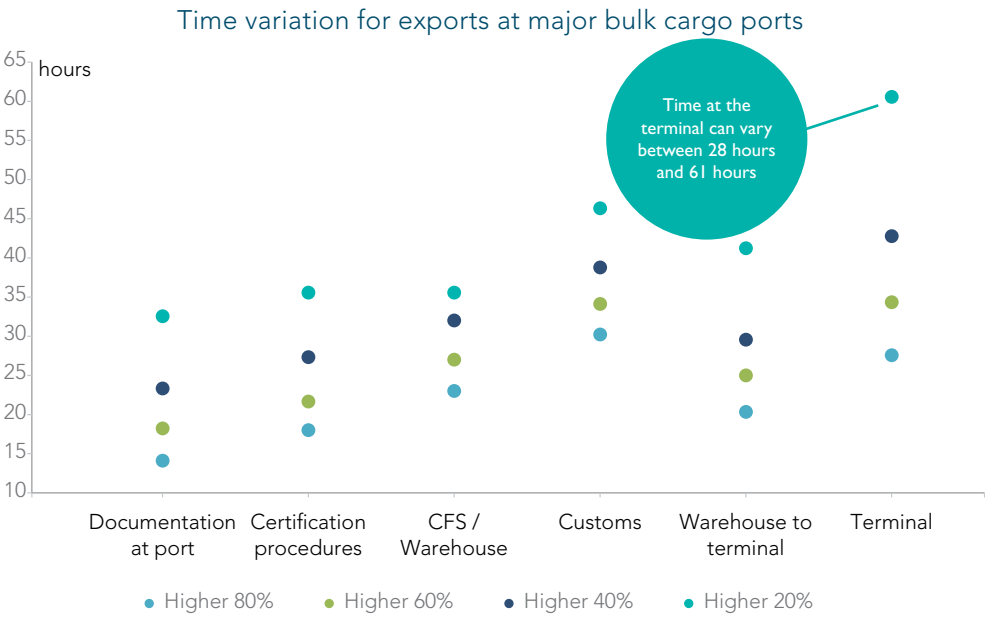
Time variation for exports at major container ports



Major container ports







Major bulk cargo ports

Note: For calculation of variation in time, responses were arranged in descending order (maximum to minimum time taken). An average of the higher 20/40/60/80% of the responses was considered.

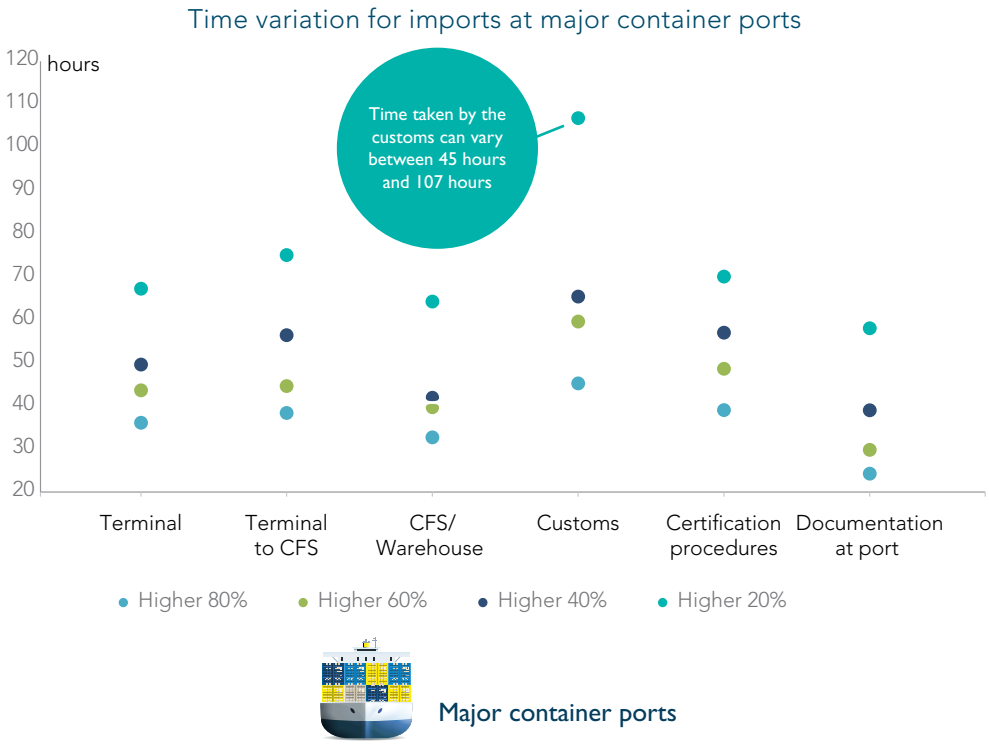
Imports

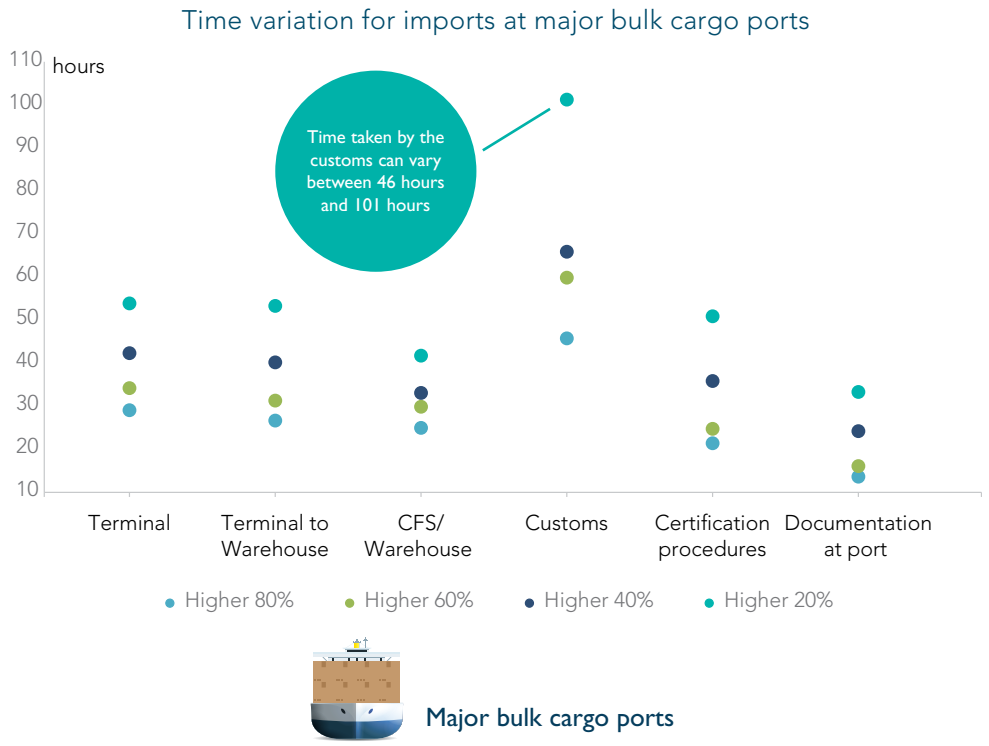
Procedures differ not only across ports but also amongst stakeholders at the same port

Absence of 24x7 operations creates a spillover and leads to congestion

Differences in procedures related to issuance of DO, obtaining custodian gate pass, number of documents required, mode of payment etc. affect the time taken and thereby the ease of trading to a great extent. Average time taken at the terminal varies from 36 to 67 hours at the major container ports and from 29 to 54 hours at the major bulk cargo ports. Average time taken from terminal to CFS/Warehouse varies from 38 to 75 hours at the major container ports and from 27 to 53 hours at the major bulk cargo ports. Average time taken at CFS/Warehouse varies from 33 to 64 hours at the major container ports and from 25 to 42 hours at the major bulk cargo ports. Average time taken by customs varies from 33 to 64 hours at the major container ports and from 25 to 42 hours at the major bulk cargo ports. Average time taken for certification procedures varies from 39 to 70 hours at the major container ports and from 21 to 51 hours at the major bulk cargo ports. Average time taken for certification procedures varies from 24 to 58 hours at the major container ports and from 14 to 33 hours at the major bulk cargo ports.

Factors that could have possibly influenced variations in the time taken for certification procedures are distance of testing facilities and laboratories from the port, presence of limited number of PGAs on SWIFT and absence of a fixed timeframe for submission of test results by PGAs. The variations in time taken at the terminal and from CFS/warehouse to terminal or vice-versa could be attributed to occurrence of port congestion at different ports. For instance, the Container Movement Facilitation Cell (CMFC) at the V.O.C port does not work on weekends causing delays in the movement of import containers and congestion on Mondays due to spillover. Similarly, the volume of trucks entering the V.O.C port is 3.8 times higher during the 2nd shift and 2.4 times higher in the 3rd shift as compared to the 1st shift, causing congestion.





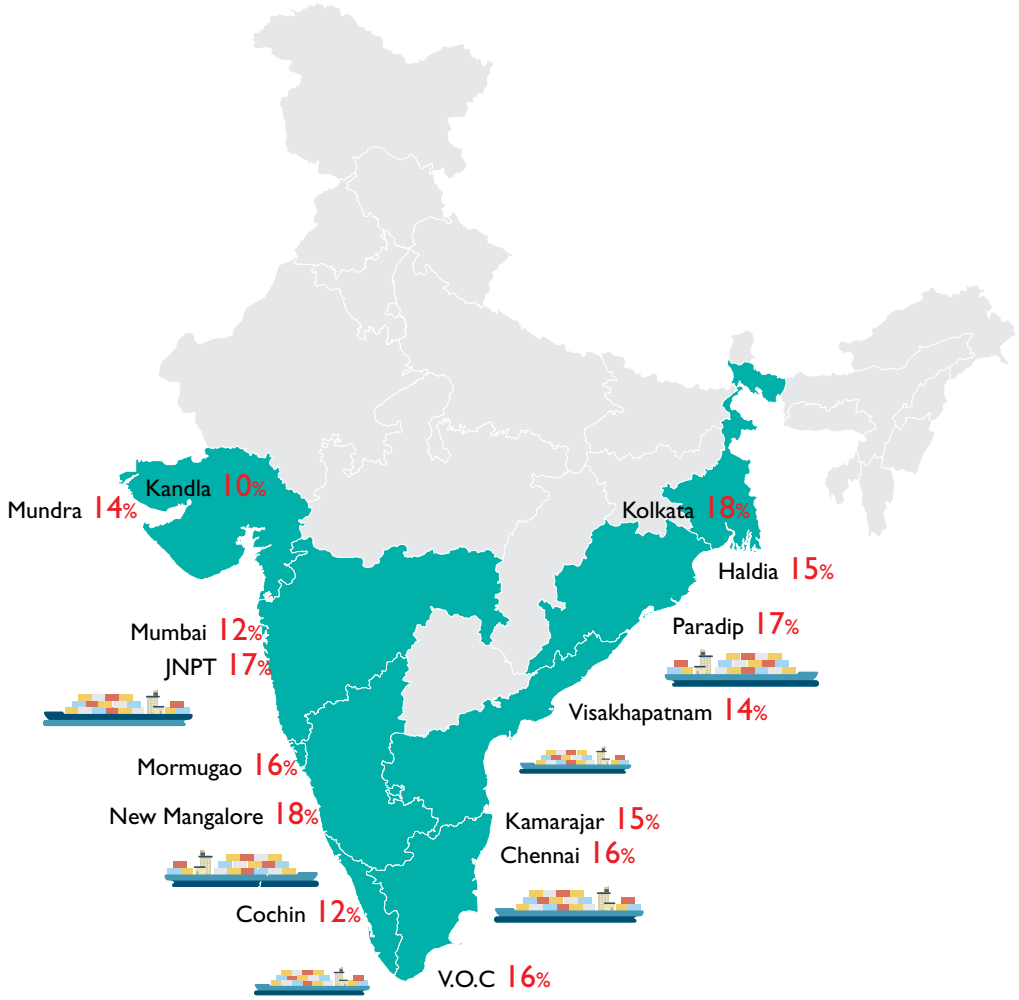
Note: For calculation of variation in time, responses were arranged in descending order (maximum to minimum time taken). An average of the higher 20/40/60/80% of the responses was considered.

Cost incurred

In order to estimate the cost incurred by the EXIM while trading across the selected ports, the survey attempted to estimate the port logistics cost. Port logistics cost was pre-defined on the basis of discussions with various stakeholders as the total cost incurred towards shipping line, CFS/Warehouse, customs and documentation, detention & demurrage and any other miscellaneous charges including informal payments for exporting/importing goods/container and the respondents were asked to state it as a %

of the total value of consignments. As per the survey results, the average cost incurred by the trade on port logistics as a percentage of the total value of consignment at the major container ports is 16% and the average port logistics cost incurred at major bulk cargo ports is 15%. The cost at the major bulk cargo ports on the east coast (16%) was found to be slightly higher as compared to the west coast (14%).

Port logistics cost as a percentage of total value of consignments



As per the survey results, average port logistics cost as % of total value of goods traded is 15%

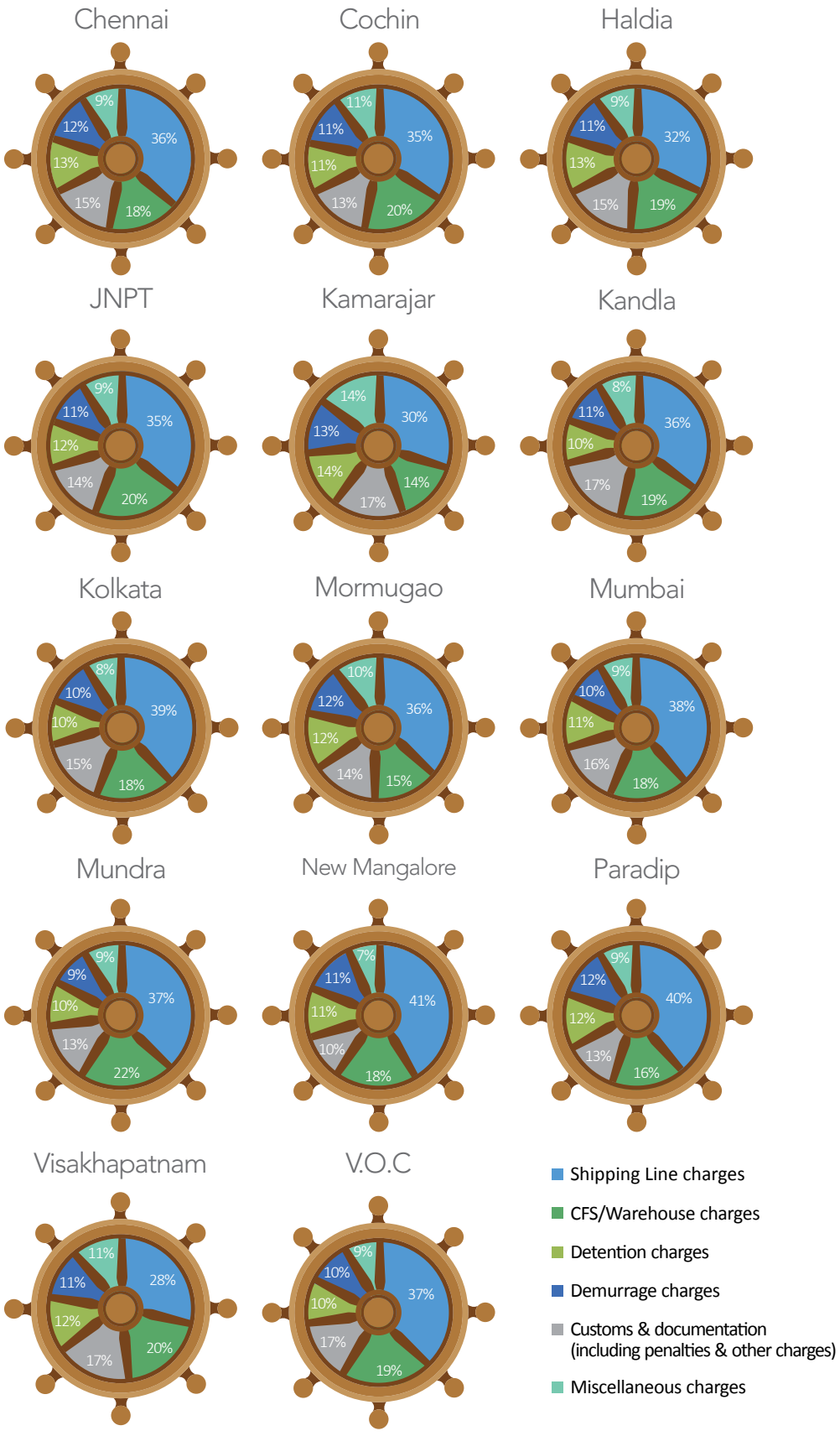
It has been found that inefficiencies also invariably increases the transactional cost

Break-up of the total port logistics cost reveals that the average cost incurred on shipping lines is around 36% at the major container ports and around 38% and 33% at the major bulk cargo ports on the west coast and east coast, respectively. Detention and demurrage together account for around 21% of the total logistics cost at the major container ports and around 23% at the major bulk cargo ports. Average CFS/Warehousing cost accounts for around 19% of the total logistics cost at the major container ports and around 17% of the total logistics cost at the major bulk cargo ports. Average customs & documentation charges (including penalties) account for around 14% of the total logistics cost at the major container ports and around 15% at the major bulk cargo ports. Miscellaneous charges account for the remaining 9% at the major container ports and 10% at the major bulk cargo ports.

Through our discussions with various stakeholders and results of the survey, it has been found that inefficiencies at each stage of the import/export cycle invariably increases the transactional cost to a great extent. Prevalent usage of physical copies of documents requires additional staff to handle such procedures. Delays in customs and regulatory clearance lead to incurrence of demurrage and detention charges. Shipping lines charges often lack clarity and in certain cases are exorbitant. It is perceived that the nomination

premium paid by CFS to shipping lines is passed on to the customers through arbitrary charges. In addition, restriction under the cabotage law and issues related to fixation of tariff have also contributed to an increase in the overall port logistics cost. Given below is the break-up of the port logistic cost for the 14 selected ports.

Break-up of port logistics cost at the 13 major ports and one non-major port i.e. Mundra

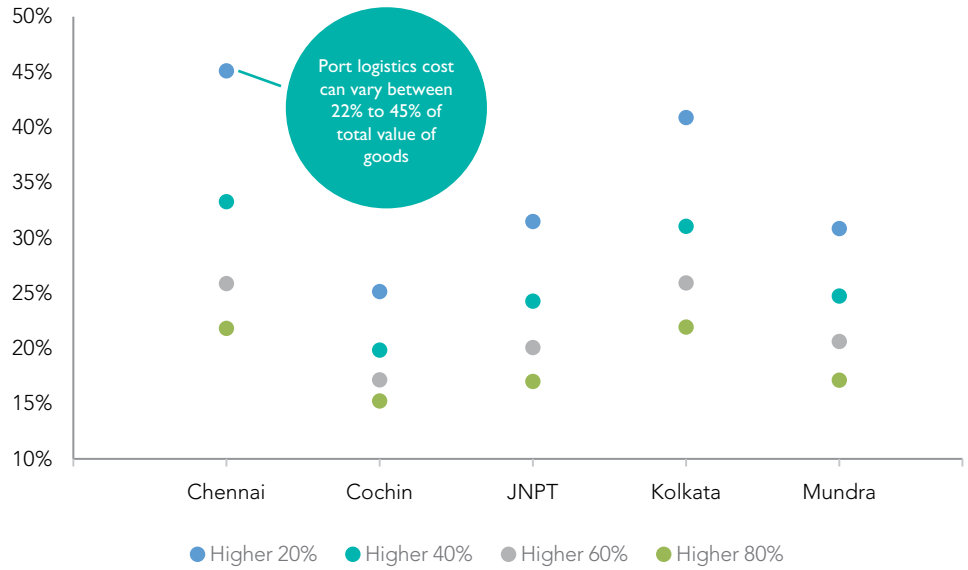


Similar to time, there is a high variation in cost to trade across ports and across type of trade (export and import). The variation in average cost is found to be higher among the major container ports relative to variation in cost among the major bulk cargo ports. It has been found through the survey that the incurrence of detention and demurrage charges to a large extent depends on the size of a firm. Small sized firms are left with little power to negotiate with the CFS and shipping lines on the number of free days allowed and thus are subject to such charges. High cost differentials are also observed across the type of shipment, i.e. Full Container Load (FCL) and Less than Container Load (LCL). LCL shipments are found to suffer from higher arbitrary charges levied by the shipping lines.

Shipping line charges account for the highest share in total port logistics cost

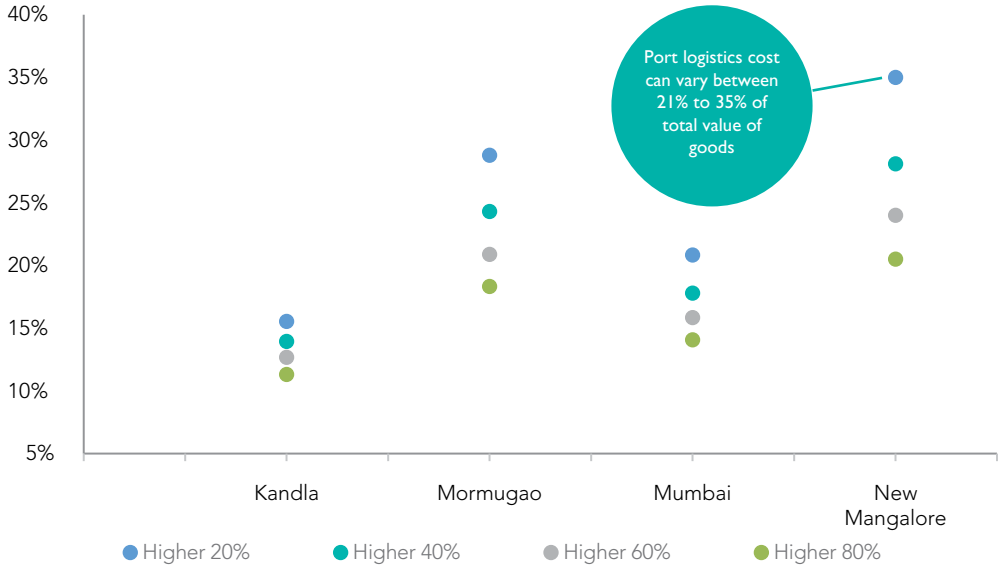
Delays in clearance leads to additional cost through detention & demurrage charges

Cost variation at major container ports

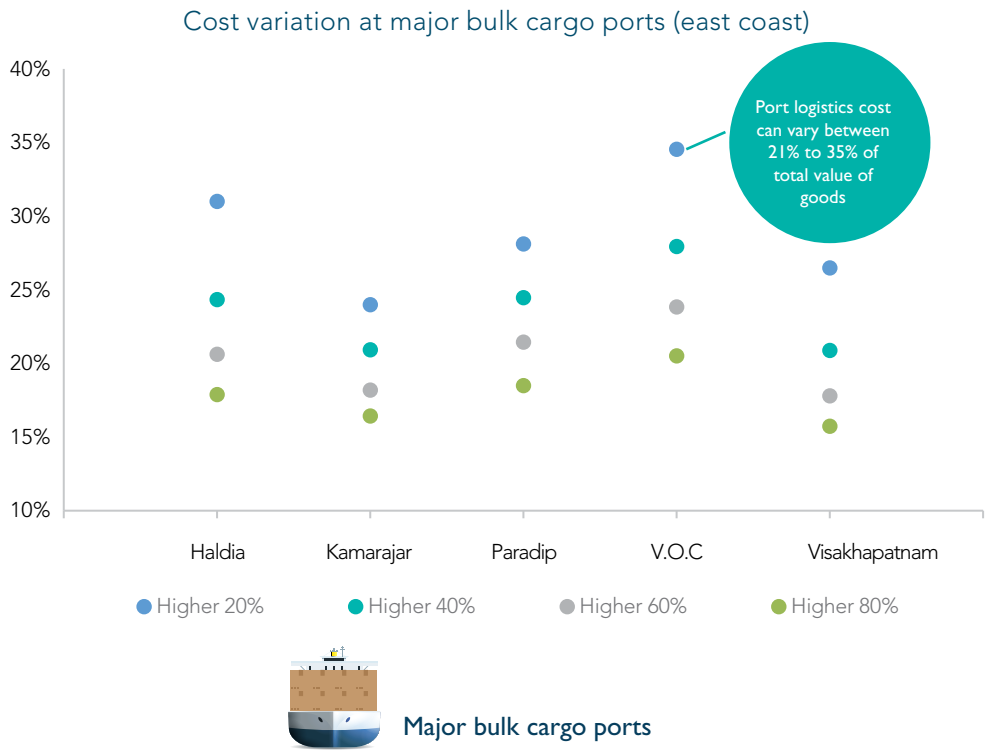


Major container ports

Cost variation at major bulk cargo ports (west coast)



Major bulk cargo ports



Note: For calculation of variation in cost, responses were arranged in descending order (maximum to minimum cost incurred). An average of the higher 20/40/60/80% of the responses was considered. Graph represent port logistics cost as a percentage of total value goods.

Mapping user experience with factual inference

As discussed earlier, the Port Performance Index combines the perception of the stakeholders with outcome data. This section focuses on pairing primary qualitative indicators with primary quantitative indicators for each port to validate the results of the survey. For the ease of representation, scores were categorised into three grades – good, average and poor.

With respect to timeliness, perception of the stakeholders in 12 out of 14 ports under consideration matched with the outcome data (either with same category score or one-notch deviation). With respect to transactional cost, perception of the stakeholders in 13 out of 14 ports under consideration matched with the outcome data (either with same category score or one-notch deviation). The comparable scores on both sets of indicators signals the robustness of the Port Performance Index.

Timeliness		Port Outcome Index		
		Poor	Average	Good
Port Perception Index	Poor		JNPT Cochin Chennai	
	Average	Kolkata New Mangalore Haldia V.O.C		Mundra
	Good	Mormugao Paradip	Visakhapatnam Kamarajar	Kandla Mumbai

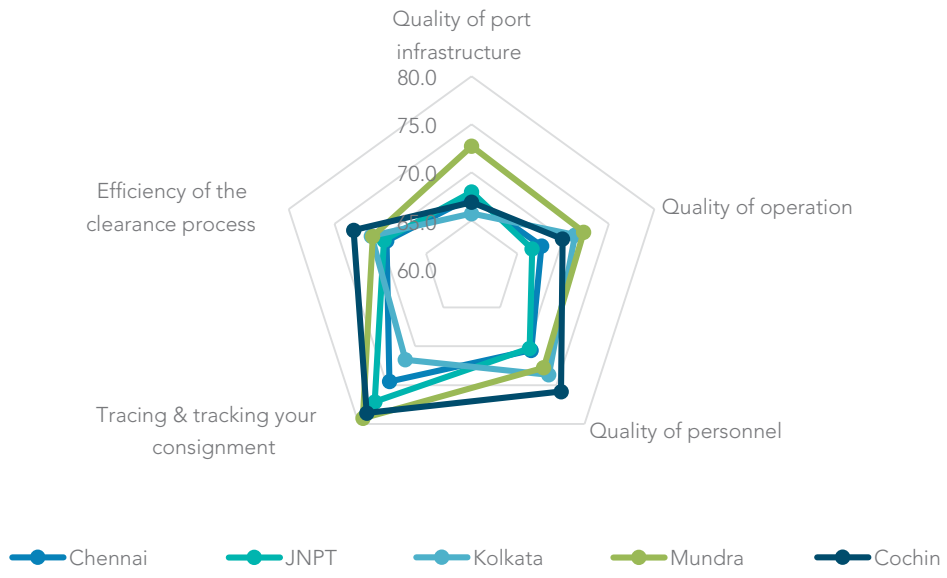
Transactional cost		Port Outcome Index		
		Poor	Average	Good
Port Perception Index	Poor		JNPT Chennai Kolkata Mundra	V.O.C
	Average	Haldia	Mumbai	New Mangalore Paradip Mormugao
	Good			Cochin Kamarajar Visakhapatnam

With respect to timeliness, perception of stakeholders in 12 ports and with respect to transactional cost, perception of the stakeholders in 13 ports matched with the outcome data

Sub index 2: Port perception index (Primary qualitative indicators)

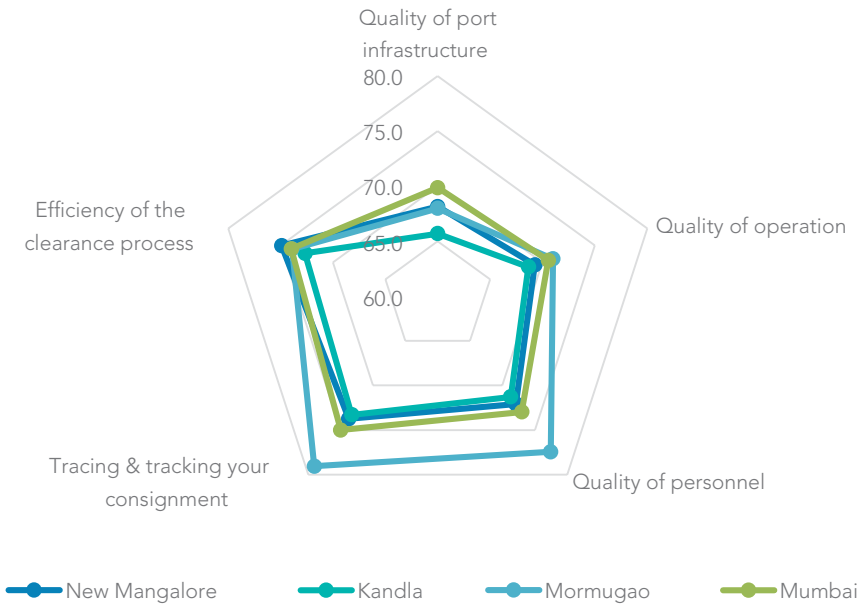
The primary qualitative indicators which serve as key input parameters helps in identifying those aspects which impact, either directly or indirectly, the time taken to trade and cost incurred. Analysis of the primary qualitative indicators point to quality of port infrastructure and operations as the areas which require the most attention followed by efficiency of clearance procedures and quality of personnel. Ports of Kolkata (66) and Kandla (66) have attained the lowest score for quality of port infrastructure. Chennai port (69) and JNPT (70) attained the lowest score for efficiency of clearance procedure. Ports of Kolkata (72) and V.O.C (72) have attained the lowest score for tracking & tracing a consignment.

Components of Port Perception Index - Major container ports



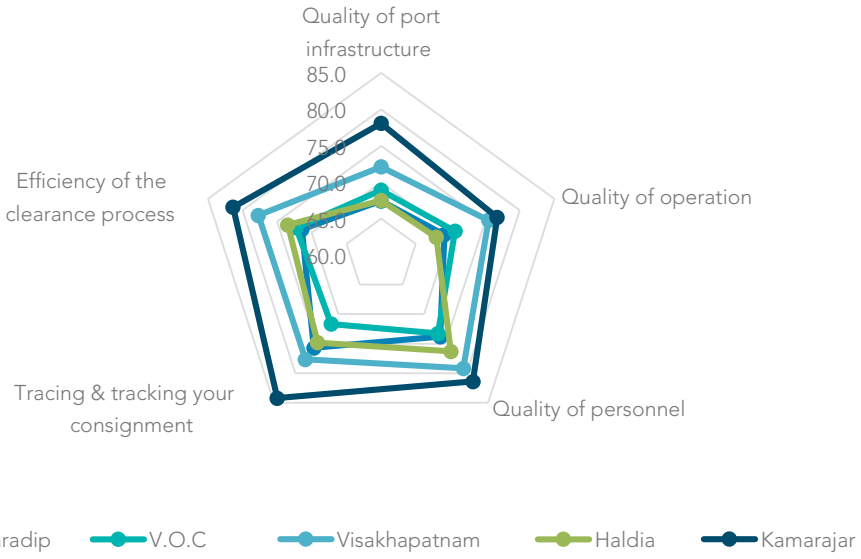
Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Components of Port Perception Index - Major bulk cargo ports (west coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Components of Port Perception Index -
Major bulk cargo ports (east coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

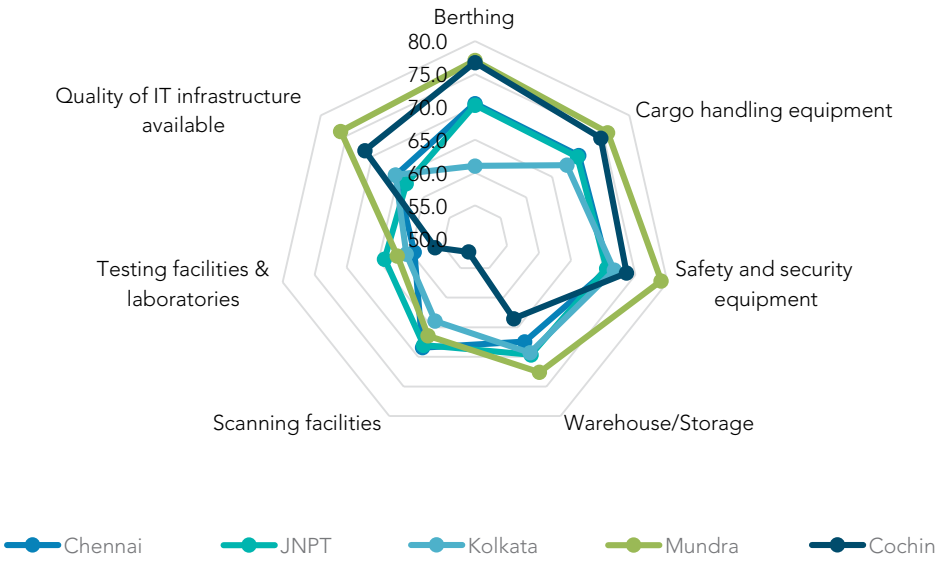
The sections below describe in detail the survey findings for each of the major components which constitute the overall port perception index.

Quality of port infrastructure was rated with the lowest score by the survey respondents across all ports, followed by operations and efficiency of clearance procedures

Quality of port infrastructure

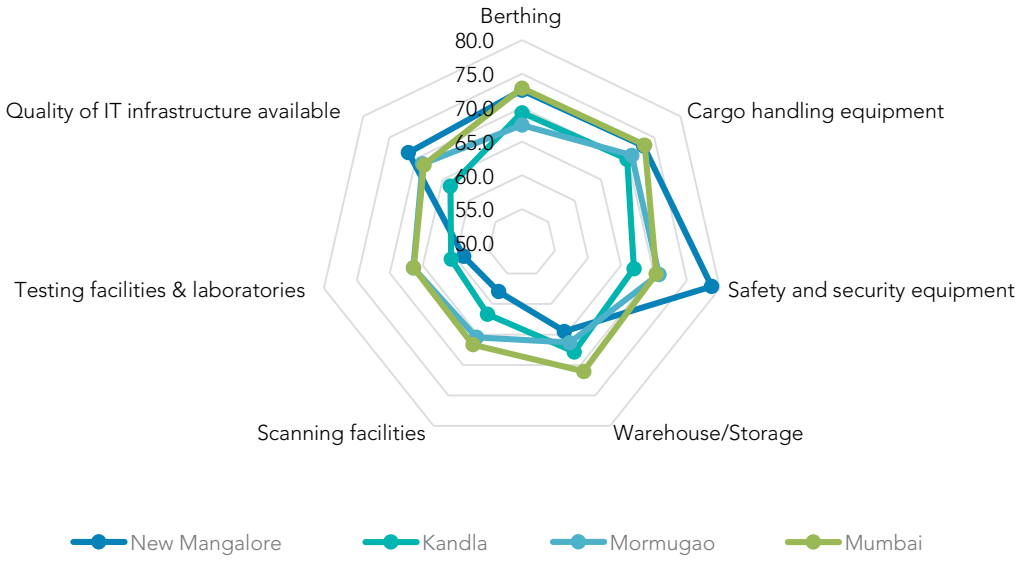
Scanning facilities and Testing facilities & laboratories are the two aspects that require the most attention at all the ports with respect to quality of port infrastructure. Ports of Cochin (52 for scanning; 56 for testing facilities), New Mangalore (58 for scanning; 59 for testing facilities) and Haldia (61 for scanning and testing facilities) have attained the lowest score on these two indicators. A low score on these indicators corroborates the lack/inadequacy of scanners at the ports. Inadequate presence of PGAs (including testing facilities & laboratories) in the vicinity of ports was cited as a concern as sending samples to distant locations is a time consuming process. Further, the quality of IT infrastructure namely PCS and ICEGATE at the two biggest public container ports, JNPT (63) and Chennai (65), has also emerged as one of the major concerns that drags down the overall score for these ports.

Quality of Port Infrastructure at major container ports



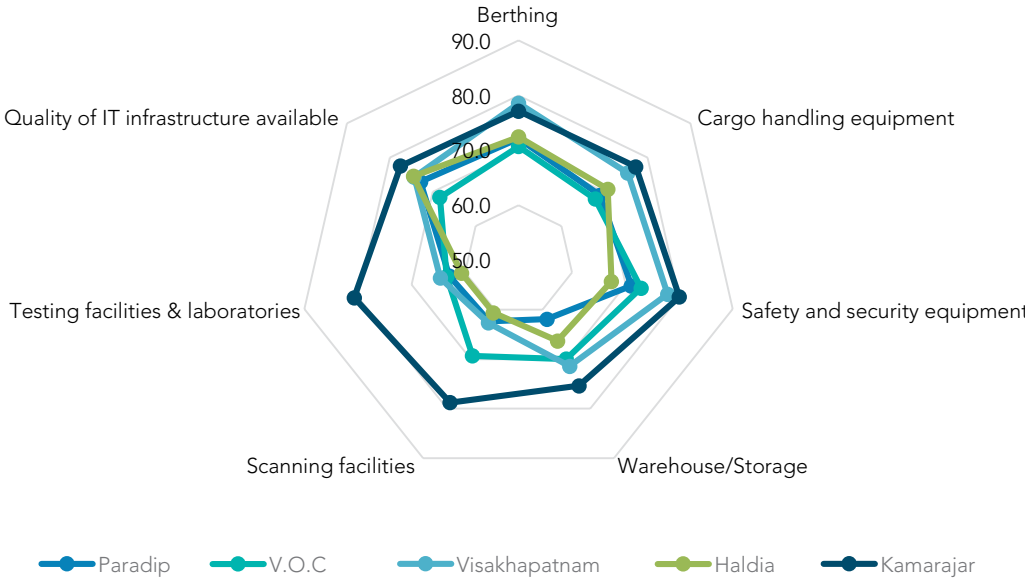
Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of Port Infrastructure at major bulk cargo ports (west coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of Port Infrastructure at major bulk cargo ports (east coast)



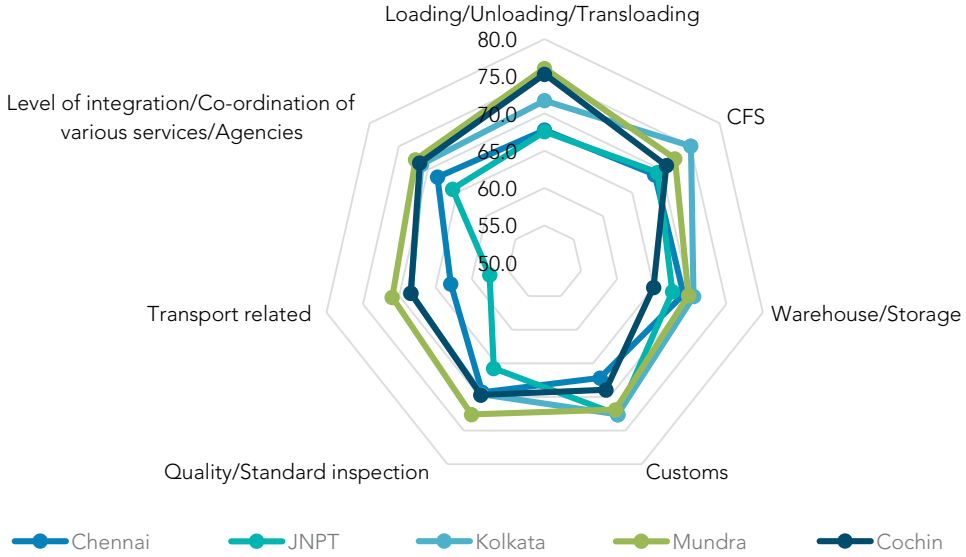
Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of operations

Transport and Warehouse/Storage are the two aspects that require the most attention at all the ports with respect to quality of operations. JNPT (58 for Transport; 68 for Warehouse/Storage), Cochin (68 for Transport; 65 for Warehouse/Storage), New Mangalore (61 for Transport; 62 for Warehouse/Storage) and Haldia (56 for Transport; 62 for Warehouse/Storage) have attained the lowest score on these two indicators. Frequent congestions and the associated costs could have had a negative impact on the users of the port. With respect to quality of customs operations, respondents at the ports of Chennai, Kandla and V.O.C were the most dissatisfied. With respect to quality/standard inspection, respondents at JNPT were the most dissatisfied.

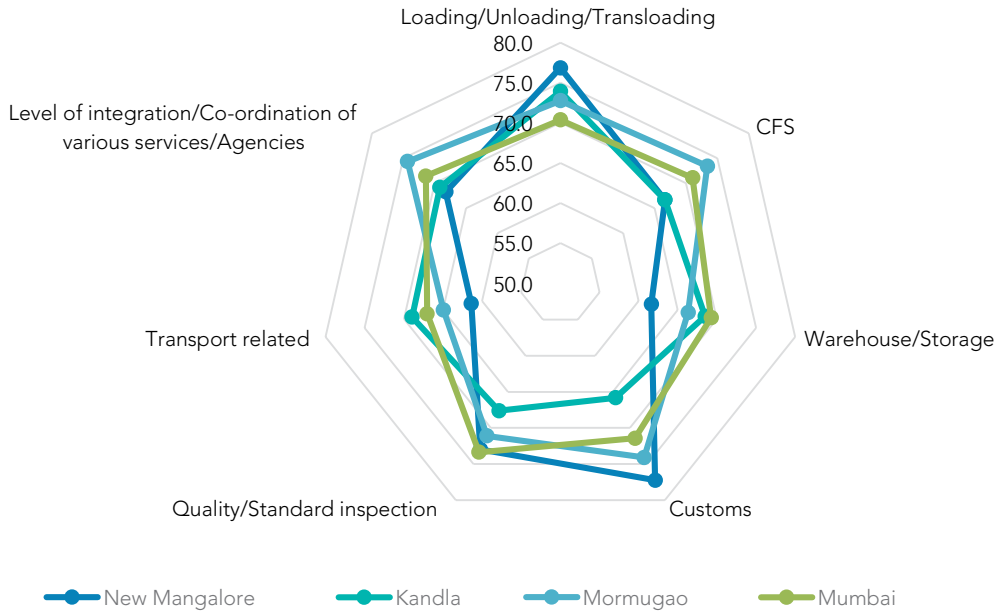
Under port infrastructure, testing facilities & laboratories was rated with the lowest score across all ports

Quality of Operations at major container ports



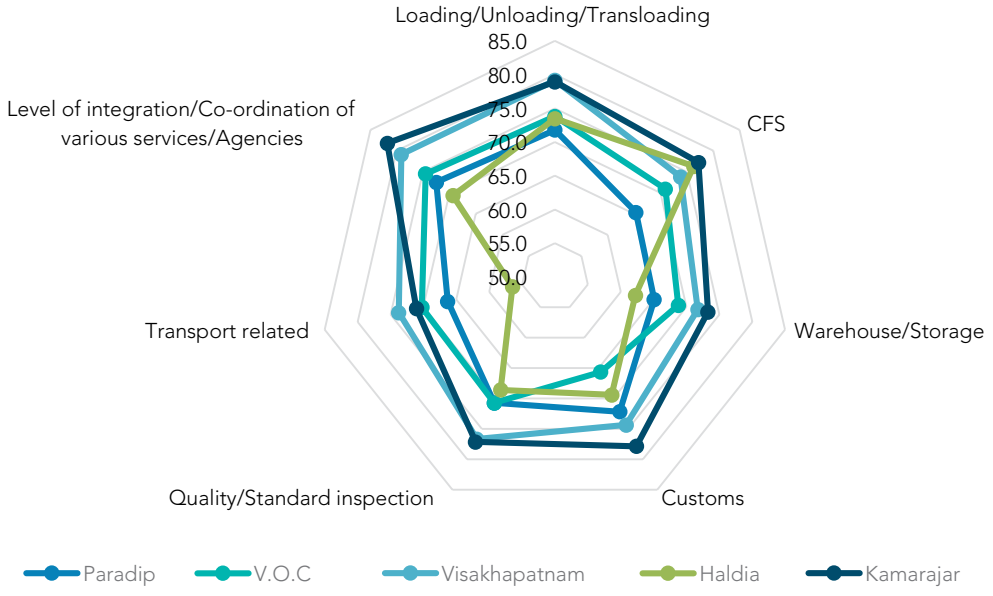
Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of Operations at major bulk cargo ports (west coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of Operations at major bulk cargo ports (east coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Efficiency of clearance procedures

With regards to efficiency of clearance procedures, the customs clearance (average score of 73) is comparatively better than regulatory clearance (average score of 69) at all the major container ports. However, regulatory clearance (average score of 76) is comparatively better than customs clearance (average score of 75) at the major bulk cargo ports on the east coast.

Efficiency of Clearance Procedures at major container ports

Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

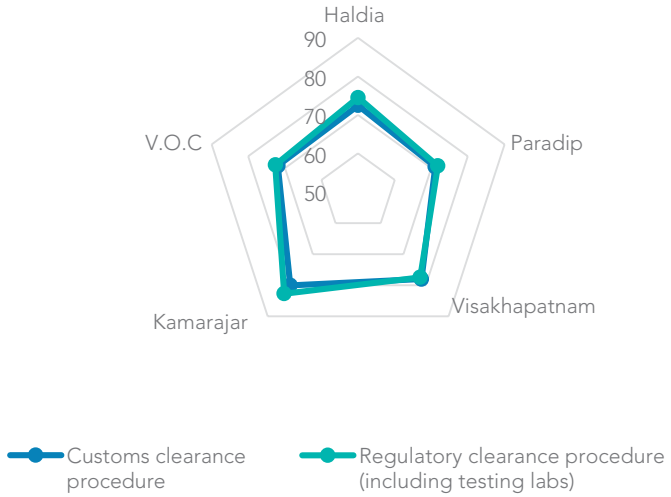
Under operations, transport was rated with the lowest score across all ports

Efficiency of Clearance Procedures at major bulk cargo ports (west coast)

Ports ranked higher in efficiency for clearance process

Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Efficiency of Clearance Procedures at major bulk cargo ports (east coast)

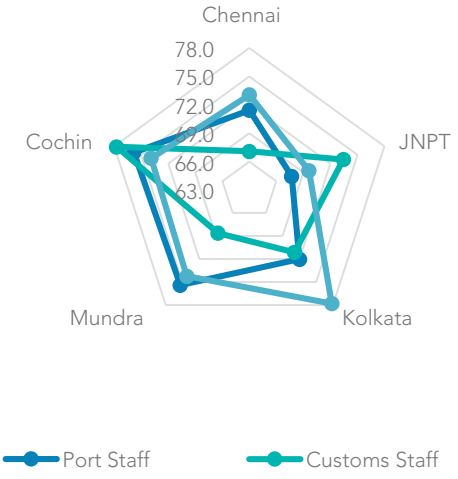


Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of personnel

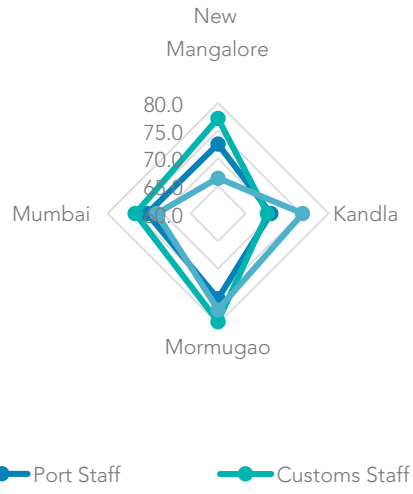
With regards to quality of personnel, respondents in 6 ports were most dissatisfied with customs staff while respondents in 5 ports were most dissatisfied with port staff and respondents in the remaining 3 ports were most dissatisfied with CFS/Warehouse staff. Although the efficiency of customs clearance procedure was comparatively better than regulatory clearance procedure, quality of customs staff is perceived as the biggest concern at the major container ports. While port staff is perceived as the biggest concern at the bulk cargo ports on the east coast, CFS/Warehouse staff is perceived to be the biggest concern at the bulk cargo ports on the west coast.

Quality of Personnel at major container ports



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

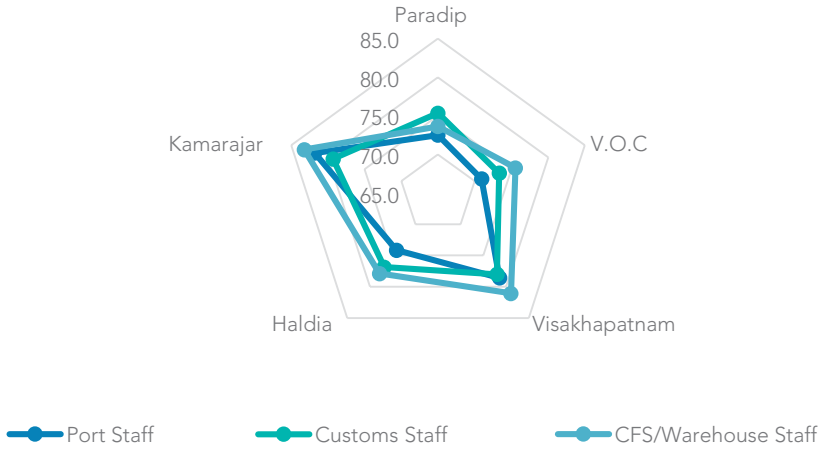
Quality of Personnel at major bulk cargo ports (west coast)



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

Quality of Personnel at major bulk cargo ports (east coast)

Capacity utilisation rate at ports varies significantly



Note: Graph represents the scores attained by ports on a scale of 1 (lowest score) to 100 (highest score)

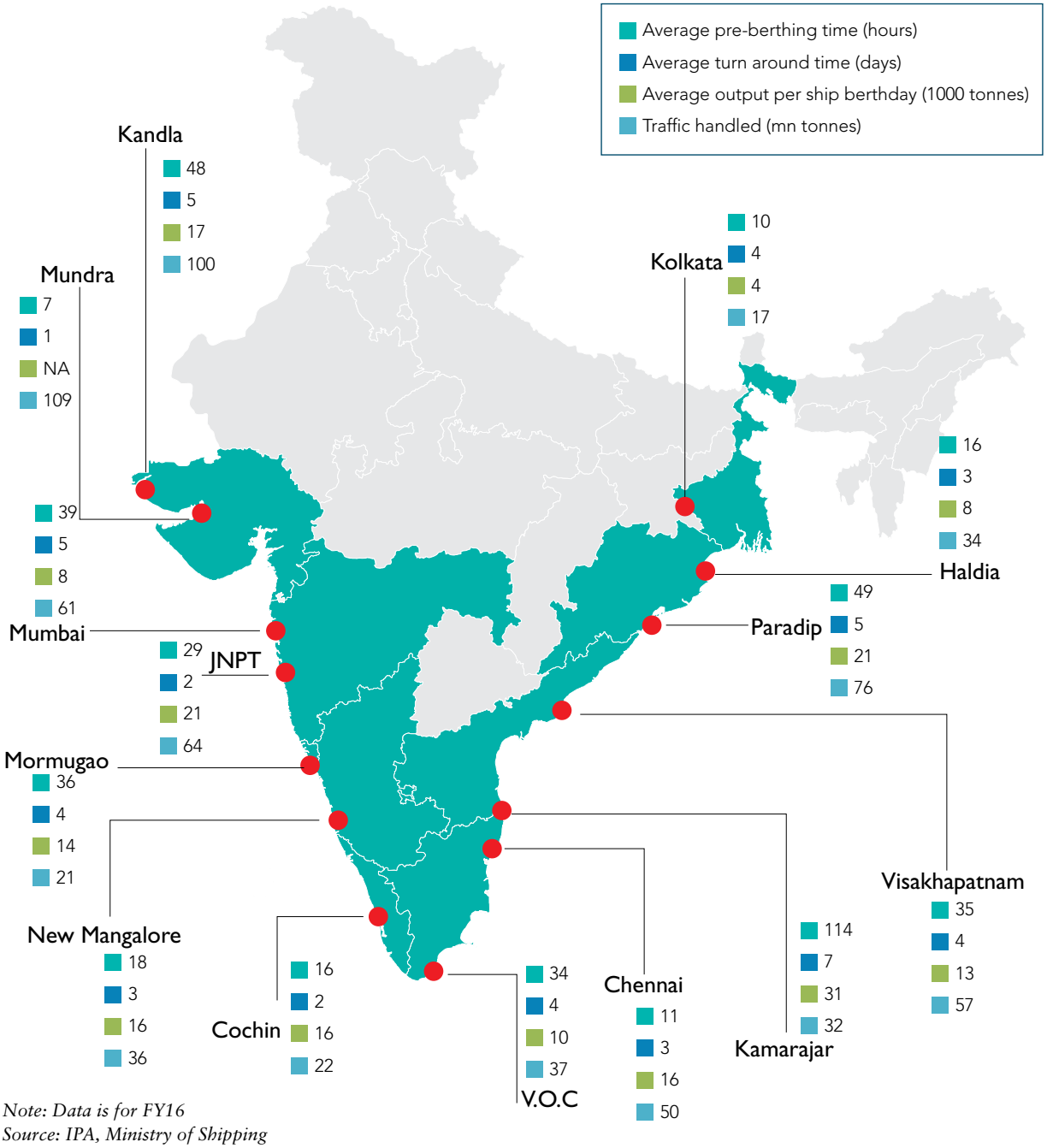
Sub index 3: Port efficiency index (Secondary quantitative indicators)

As discussed in the methodology, seven key performance indicators released by the Indian Ports Association and Ministry of Shipping were used to construct the port efficiency index. Data was taken for the latest available Financial Year (FY) viz. data for Average Turnaround Time (ATT) of vessel, average pre-berthing detention, average output per ship berthday, average non-working time to total stay at berth, traffic handled and capacity utilisation rate is that of FY16 while data for average berth occupancy is that of FY15.

Mundra port and Kandla port are the only two ports in India which have crossed the 100 mn tonnes mark in traffic handled. Paradip port and JNPT handled 76 mn tonnes

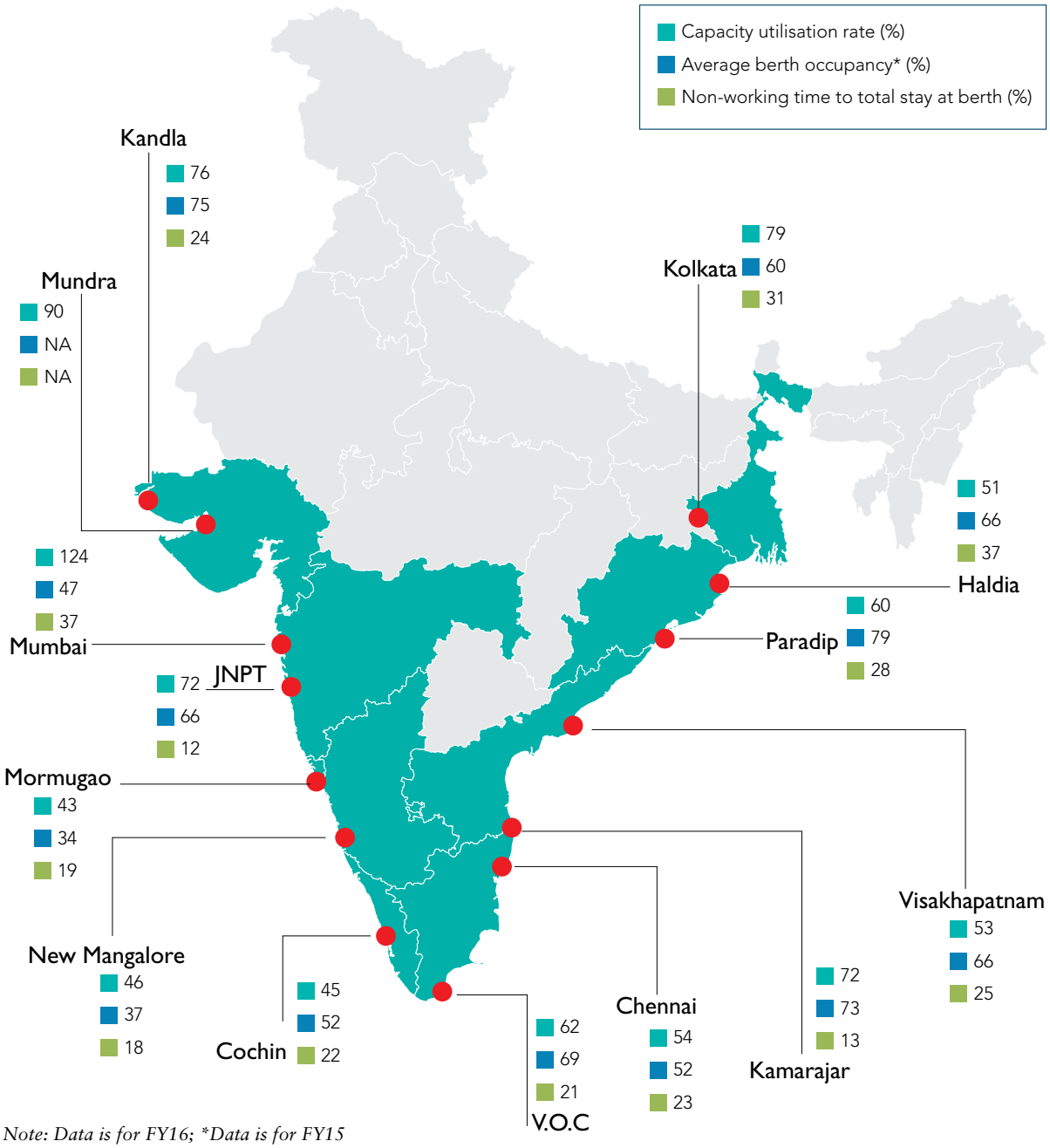
and 64 mn tonnes, respectively. Kolkata port handled the lowest traffic of 17 mn tonnes. Capacity utilisation rate at ports varies significantly. While six ports - JNPT, Kolkata, Mundra, Kamarajar, Kandla and Mumbai - are above the upper bound of optimal capacity utilisation rate (60-70%), three ports – Cochin, New Mangalore and Mormugao – operate below 50% of the total capacity. Kamarajar port and JNPT fare better in terms of average output per ship berthday and average non-working time at berth. Ports of Kolkata, Haldia and Mumbai are the least efficient in terms of average output per ship berthday and average non-working time at berth. Mundra port fares better in terms of ATT of vessel with just 1.4 days, followed by Cochin port with 2.2 days and JNPT with 2.4 days while ports of Kamarajar and Kandla take 6.5 days and 4.7 days, respectively. Poor performance of ports of Kamarajar and Kandla in ATT could be partly explained by the high pre-berthing time at these ports. Ports of Mundra and Kolkata fare better in terms of average pre-berthing time.

Secondary quantitative indicators



Note: Data is for FY16
Source: IPA, Ministry of Shipping

Secondary quantitative indicators



*Note: Data is for FY16; *Data is for FY15*
Source: IPA, Ministry of Shipping

The Port Performance Index will serve as a useful tool for policy makers

The findings of the survey, that port logistics cost alone constitutes around 15% of the total value of consignment, corroborates the fact that India suffers from high logistics cost. While measures to improve the overall port ecosystem are gaining ground, implementation of coherent policies in those areas which require the most attention immediately would go a long way in facilitating the ease of trading. By shedding light on the cost of inefficiencies and identifying key areas for improvement, it is hoped that the Port Performance Index will serve as a useful tool for policy makers. Issues and challenges related to infrastructure, operations and connectivity that have a bearing on time taken and cost to trade are discussed in detail in the next chapter.


BIGLIFT

Chapter 4
Logistics Issues & Challenges at Major Indian Ports

Introduction

As discussed in detail in ***Chapter 2: Overview of Port Sector in India***, although the maritime sector has grown manifold over the years, the logistics costs remain high. This in turn, is a reflection of the inherent issues and challenges facing the sector, which have dragged down overall operational efficiencies and inflated logistics costs of trading through seaports. Given the importance of the maritime sector in India's global trade for improving its global competitiveness and unlocking future opportunities, Dun & Bradstreet attempts to identify and diagnose these challenges, and suggest suitable policy inputs.

Inherent issues and challenges facing the sector have adversely impacted operational efficiencies & inflated logistics costs of trading through seaports

In the previous chapter, ***Chapter 3: Port Performance Index***, the second objective of the study i.e. design and construction of port performance index was discussed. In the current chapter, the first objective i.e. to identify selected ground level issues and challenges faced by exporters/importers at select Indian ports will be discussed in detail.

As presented in the methodology section, the framework for identifying issues and challenges comprises of two broad level approaches, the first through survey of exporters/importers/CHAs/FFs with open ended questionnaire and second approach being discussion with selected stakeholders, i.e. industry chambers/associations/organisations representing trade and part of port ecosystem. For representation purposes, the identified issues and challenges have been segregated into two broad categories i.e. first is through primary survey and second is through stakeholders meeting. Each broad category has been further divided into three segments i.e. Infrastructure, Operations and Connectivity.

The following chart (Port-wise major issues & challenges faced) presents the summary of the key issues and challenges identified during the primary survey of exporters, importers, CHAs and freight forwarders with open ended questionnaires. The eight challenges that have been identified as the most common problems faced by the users across ports are Port congestion, Customs & Customs clearances, Shipping line issues & charges, Documentation & paperwork, Scanning and testing facilities, ICEGATE (Digital infrastructure), Physical infrastructure and Regulatory clearance. These along with the other burning issues identified during stakeholder interactions have been diagnosed in this chapter.

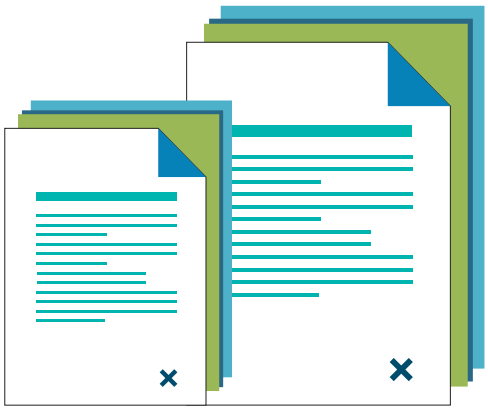
Port-wise major issues & challenges faced

Issues	Chennai	Cochin	Haldia Dock	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	Visakhapatnam	VOC
Congestion in port	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Customs & customs clearance	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Shipping line issues & charges	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Documentation & paperwork	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ICEGATE (Digital infrastructure)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Regulatory clearance (along with PGAs)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Scanning & testing facilities	●	●	●	●		●	●		●	●	●	●	●	●
Physical infrastructure	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Labour/Staff	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Port charges	●	●	●		●	●	●		●	●	●	●	●	●
Container delivery	●		●	●		●	●	●	●	●		●	●	●
Transportation	●	●	●	●	●		●		●	●	●	●	●	●
Connectivity related issues	●			●			●		●	●			●	
Level of integration/ Co-ordination of various services	●	●		●			●			●	●			

● More than 25% of respondents ● Between 5% - 25% of respondents ● Upto 5% of respondents

Note: Size of the bubble indicates actual percentage of respondents

Source: Dun & Bradstreet Survey



1. Port congestion

The survey results show that more than 25% of respondents in 10 out of the 14 ports (for some ports, the percentage of respondents are as high as 66%) under study have identified congestion in ports as a serious concern. The issue of port congestion is a culmination of multiple factors like inadequacy in the existing physical infrastructure, as also certain operational inefficiencies and connectivity issues, which result in time delays and cost escalations. While the capacity of ports has increased over the years, the infrastructure required to support the expansion in trade has not increased concomitantly. Our survey results also point towards the dissatisfaction of the users with respect to physical infrastructure at port (Please refer to chart Port-wise major issues & challenges faced on page 68). Not only is the physical infrastructure a major bottleneck towards smooth operations, certain operational and procedural differences across various ports, labour related issues and connectivity constraints also compound the problem of seamless cargo evacuation. We have found four major factors responsible for port congestion across ports i.e. physical infrastructure, labour issues, procedural differences especially gate-in process and low rate of rail evacuation. The detailed explanation of these four factors has been presented below, categorised into broader categories of Infrastructure, Operations and Connectivity issues, as applicable.

Infrastructure

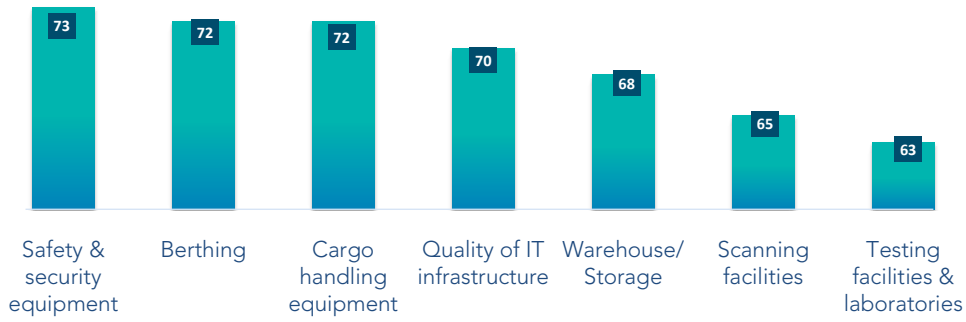
1) Physical Infrastructure

Four major factors responsible for port congestion: physical infrastructure, labour issues, procedural differences & low rate of rail evacuation

A robust physical infrastructure is the backbone of sustainable development of the logistics sector. However, India lags behind in development of seaport related infrastructure. Therefore, trade infrastructure, particularly ports-related infrastructure requires immediate attention.

The survey results on the Quality of Port Infrastructure reveal some alarming opinion of the users about the physical infrastructure. Over 30% respondents in more than 50% of the ports rated Berthing, Scanning Facilities, Warehouse, and Cargo Handling Equipment as poor. Further, over 45% respondents in 7 of the 14 ports rated Testing Facilities & Laboratories as poor.

Score variation across infrastructure sub-categories



Note: Graph represents the average score of all ports on Quality of infrastructure indicators
Source: Dun & Bradstreet Survey

Some of the key areas that need urgent attention include deepening of drafts of berths; deployment of shore mobile cranes; storage space and better connectivity from ports to Inland Container Depots (ICDs), amongst others. Infrastructure, both inside and outside ports needs to be upgraded, and the last mile connectivity provided should also be strengthened by improving road connectivity. Some of the major physical infrastructure related challenges are discussed below:

Shortage of adequate quality and quantity of cargo handling equipment

There is a dearth of cargo handling equipment at the various major Indian ports, not only in terms of numbers but even in terms of their handling capacities. The inadequacies in the quality and quantity of CHE and use of old equipment leads to higher wear and tear and as a consequence, frequent down time of equipment, eventually impacting time taken for cargo evacuation and operational efficiencies.

Issues related to physical infrastructure at select ports

- Harbour mobile cranes are being shared by several berths due to inadequate availability – Paradip port
- Though berth 8 is 345m long, no cranes can be deployed at a particular 45m stretch because of low load bearing capacity. No two big vessels can be berthed at once – V.O.C port
- Berth productivity for containers at NMPT is low due to absence of dedicated container berth and quay cranes – New Mangalore port
- Most vessels rely on vessel gear as there are no quay cranes available. Vessels have to pay for use of MHCs – New Mangalore port
- The port has lost some cargo business to private ports due to limited storage and warehousing capacity inside the port – New Mangalore port
- Inadequate availability/sharing of cargo handling equipment for loading/discharge of ICD cargo between the terminals has resulted in high Train TAT – JNPT
- One drive-through fixed scanner is situated at CWC at Dronagiri, about 10 kms from the port - JNPT
- Due to no scanner at the port, in case of delays in bringing in cargo before cut-off time, the CHA has to pay Special Service Request charges to the Customs, for gating in the cargo after cut-off time, of ₹ 3,220 per container – Cochin port
- No adequate cranes to manage peak demand. All RTGCs are deployed for vessel operations when more than two ships are berthed – Chennai port
- Discharge of coal stops when there is a breakdown at the TANGEDCO plant. Frequency of breakdown is twice a month, and the downtime is 15 to 20 hours – Kamarajar port
- There is no scanning facility in the port or CFS – Kolkata port
- Stacking of containers is not efficient; Difficult to locate the cargo, especially in case of LCL cargo; Goods get damaged – Kolkata port
- There is no storage at port for food articles and other cargo in a safe way – Kolkata port
- Safety and security equipment at the port is not adequate – Kolkata port

Lack of basic amenities at parking plazas

Another issue related to physical infrastructure as highlighted by users is the lack of proper working facilities at parking plaza/area outside port gate for documentation.

Parking plazas at major ports

- No basic amenities at the parking plaza - JNPT
- Food and water quality are bad at the parking plazas; basic amenities are not present - JNPT
- No amenities at all at the Parking plaza – Kolkata port
- No parking yard available at the port – Chennai port

Miscellaneous physical infrastructure and procedural issues in various major ports

Generic Issues

- Insufficient draft at the ports, and therefore inability to attract larger vessels
- Dedicated Freight Corridor does not connect all the ports
- Infrastructure facilities not adequate at certain CFS: Labour issues, lack of automation, equipment issues, absence of cargo racking & bar coding system

Port-specific issues

- Pre-berthing detention due to lock gate issue, riverine port and dredging issues - Haldia port
- Lack of ICD connectivity – Cochin port

Inadequacy in quality and quantity of CHE and lack of basic amenities at parking plazas impact operational efficiency

Draft levels at major ports in India

Name of Port	Draft (mtrs)	Name of Port	Draft (mtrs)
Kolkata	7.2-8.7	Cochin	9.7-15.95
Paradip	11.0-14.5	New Mangalore	7.0-14.0
Visakhapatnam	Inner Harbour:9.7-14.5 Outer Harbour: 14.0-18.1	Mormugao	13.1-14.1
Kamarajar	12.0-16.0	Mumbai	7.0-14.3
Chennai	8.5-17.4	JNPT	8.0-16.5
V.O.C	8.6-12.8	Kandla	9.0-16.2

Source: IPA

Operations

Labour issues plaguing Indian port operations

One of the reasons that make Indian ports less competitive as compared to other ports globally is the low productivity of the ports. Over 25% respondents in 6 out of the 14 ports rated quality of port staff as dissatisfied. The low productivity in turn is also attributable to local labour being hired, which is often unskilled and operates inefficiently, thereby affecting overall productivity and cargo traffic volumes handled.

One of the major labour related factors plaguing the Indian ports sector is the strong labour unionism, which results in frequent strikes/go slows, labour unrest and eventually, mandays lost. The high bargaining power of these unions has also led to high cargo handling costs at the ports. As per data available from the IPA, as of FY16, the major ports had employee/worker strength of 38,559 (officers and workers), and the total mandays lost due to stoppage of work during the year stood at a staggering 19,227 days. The ports which had the largest number of employees and lowest productivity have also reported the most number of mandays lost due to stoppage of work.

Linkage between port labour productivity & staff strength, and mandays lost

Ports	Mandays lost	Port labour productivity*	No. of employees
Mumbai	6,862	286	10,364 (27%)
Chennai	3,899	691	5,502 (14%)
Visakhapatnam	2,053	713	4,158 (11%)
Cochin	1,461	478	2,067 (5%)
V.O.C	970	359	1,347 (3%)

*Note: Data for FY16, * Output per gang shift, In Tonnes; Figs. in brackets denote share in total employment (officers & workers) in major ports; Source: IPA & Port Administration Reports*

Aimed at fostering better industrial relationship and congenial work atmosphere in the ports sector, apart from stimulating better productivity, in 2016, the Union Cabinet approved New Productivity Linked Reward Scheme for all Major Port Trusts and Dock Labour Board employees/workers for FY16 to FY18. The scheme will benefit about 37,870 port and dock workers/employees in all the Major Port Trusts and the yearly outgo will be ₹ 49.58 crore.

Labour issues at various ports

- As many as 12–13 employees are engaged for every stevedore loading gang, which leads to a lot of inefficiencies – Mumbai port
- Frequent labour unrest and strikes by workers – Paradip port
- No one administers the labour inside the port. They are not accountable – Kolkata port
- Strong labour unions are driving costs up – Cochin port
- Number of port staff is not adequate – Kamarajar port

Stoppage of work on account of strikes/go slows causes adverse impact on the time taken for cargo evacuation, causing cargo pile up and consequently congestion inside as well as outside the port, thereby resulting in time delays and escalated cost to the trade.

Strong labour unionism impacts labour productivity across ports

Differences in gate-in process

Currently, the gate-in process varies to some degree across different major ports in India. While the overall process would broadly include verification of vehicles, drivers and cargo related documents at the gate, these would vary across ports, given that there are three crucial decision-making bodies i.e. the port authorities, Customs department and the private bodies i.e. terminals who would give clearance for gate-in. No centralised common system/operating procedure is in existence, unlike the air cargo. This would mean that EXIM would have to follow different processes at different ports. The processes followed by many major ports would lead to port congestion. Add to it the port infrastructure, as also the approach road to the port and the volume of cargo handled; thereby compounding the issue of congestion at ports.

Below are some case studies to highlight the different procedures followed, and their impact on port congestion.

Case study 1- Chennai port

As Chennai is a city port, most of the export cargo enters the port in the night. The import cargo generally leaves the port in the evening. At the port gate, the CISF checks the driver pass and vehicle pass. At the terminal gate, the Customs and the terminal staff verify the documents. The trailers carry three documents – Shipping Bill, Form 13 and gate pass. The Customs checks the seal of the container manually, signs the Shipping Bill, verifies the Let Export Order (LEO) and gives the final nod for shipment. The terminal staff gives the slot number and checks the vessel in which it is to be loaded. At times, inside the port premises, some trailers remain parked that are not ready with documentation and there

is no fixed time for these trailers to move out of the port premises. Trailers are usually allowed to park inside the port till their pass is valid. The port has no means to monitor the trailers or the time during which they are inside the port and prevent such trucks from parking alongside the lanes, as there is no digital tracking system to monitor the truck/trailer movement. This sometimes leads to long queues inside the port.

The Customs have introduced RFID at the Chennai port on a trial basis. The RFID container trailer tracking system is integrated at every stage from CFS to port security gate (zero gate), customs and terminal. Pilot run of RFID-based, export document verification system is in operation for export container trailers entering into Chennai port from August 2016. Also, all the CFSs have adopted the RFID system.

The overall process includes the following steps:

CFS exit-gate trailer movement

When the trailer moves from CFS for export, list of information that is captured at the CFS gate is trailer registration number, driver name, trailer pass, container number, shipping seal number, customs seal number and information about Form 13. At CFS out gate, information like trailer and container exit time, and image of container is captured. The CFS out gate dashboard displays the information about containers moving from CFS with image of the trailer.

Zero gate security for trailers and containers

The RFID eliminates the checking of paper work by introducing e-document which consists of scan copy of driver and trailer pass and RFID e-seal number so that trailers can be verified at zero gate at the port. An auto reporting system which provides the overall truck information at zero gate as well as trailer delay, if any, gets generated. Also, at the gate, verification of the driver and container is carried out by using the driver and trailer image captured by CFS.

Customs verification and e-documentation

For the customs verification, the RFID system captures all the data of shipping bill and enables digitisation of shipping bill document. Reports on container movement - lane-wise and shift-wise - are generated. Through this system, an email copy of auto generated reports for container movement i.e. container/trailer arrival report based on shifts and auto configuration of reports is sent to the superintendent, deputy commissioner as well as Customs commissioner.

Terminal container movement in effective manner

At the terminal point/gate, the user will get an auto notification for every container which is accepted by customs and General Purpose Input/Output (GPIO) service allows trailer movement in a lined manner. View of trailer image, information of Form 13, terminal entry report based on lane and shift is made available with the terminals.

The Customs department at Chennai also plans to introduce e-seal for export containers, wherein the RFID chip will be inserted inside the digital seal such that both the seal number of the container along with the RFID can be read together at the system. This will eliminate physical verification of seal and remove a layer of inspection by the Customs.

Case study 2 - Kolkata port

Being a city port, Kolkata port gate entry is open only for 14 hours. The port remains closed on holidays and Sundays. While vehicles can move inside the port on Saturdays, payments can be made during the first half of the day. There is lack of 24x7 clearance facilities. The Customs examination takes place at the port yard inside the port and clearance is given within 5 p.m., post which, only the seal number is checked and examination does not take place. The stakeholders stated that it is not feasible for customs clearances to take place in the evening, as there are no basic amenities or proper lighting system for examination of cargo.

In Kolkata, direct port entry (DPE) for exports takes place. It takes around 1.5 to 2 days for the clearance of DPE cargo during which trailers are parked inside the port in an unplanned manner. Around 70-80% of the export cargo in Kolkata are DPE. Outside the port, trucks/trailers are parked in the parking lot while the documentation for port gate entry takes place at the shed, which is 100 meters away from the port gate. The port authority (Shed writer) checks the document and collects port charge. Port charges paid are ₹ 4,082.4 + GST per container for 20 TEU and ₹ 6,123.6 + GST for 40 TEU. The documents submitted are:

- Shipping Bill invoice
- Packing List
- Dock Challan (container no. and details, in a prescribed format according to Kolkata Port Trust)

After this, permission for truck entry i.e. Internal Documents Order (IDO) is stamped and signed by the port authority present at the shed. IDO and Port charges receipt are submitted to the gate warder at the shed for stamp and signature who then issues the Entry Gate Pass (EGP) and permit. At the same time, Dock permit for entry of truck takes place outside the port gate at a distance of around 200 meters. Doc permit charges are ₹ 100 per truck and driver, and helper permission charges are ₹ 25 per vehicle.

At the port gate, the CISF checks the following documents:

- Doc permit
- Driver and helper permission
- Truck Blue book
- Road tax
- Driver license
- Pollution certificate

Further, the shed writer positioned at around 100 meters inside the port gate is given the documents (Shipping Bill invoice, Packing List, Dock Challan) to prove the ownership of the goods.

Case study 3 - V.O.C port

At V.O.C, the CFS issues 2 copies of gate pass – one for CFS (CFS gate) and one for CISF (port gate). The Equipment Inter-change Receipt (EIR) is sent by vessel operator to the CFS through EDI. CFS prints out five copies, one each for:

- CISF (port gate)
- Outdoor Clerk (ODC - port staff at the port gate)
- Terminal (terminal gate)
- Transporter
- Customs (port gate)

At the port gate, the following verification takes place:

- The CISF verifies truck number, validity of vehicle pass and container number
- The ODC verifies the container number, truck number and RAC number (Import/ export application number) and then signs and endorses the EIR copy with a seal
- The Customs officer verifies the container seal, container number, truck number and time slot in the EIR

The export containers do not enter the port proportionately throughout the day. The volume of trucks entering the V.O.C port is 3.8 times higher during the 2nd shift and 2.4 times higher in the 3rd shift as compared to the 1st shift. At the marshalling yard, shipments are prioritised according to the vessel sailing time. Thus, the time taken at the marshalling yard for clearance can vary from 2-16 hours (as stated by the stakeholders. The gate-in time per vehicle at V.O.C port gate is ~ 10-15 minutes (as per interaction with stakeholders). For imports, the PSA terminal has a gate throughput of only 25-30 trucks per hour. Hence, trucks are piled up on the internal roads in the evening till 10:00 p.m. Only one export lane and one import lane is available at PSA Sical. At DGBT (Dakshin Bharat Gateway Terminal), about 50-60 import trailers wait inside the terminals for 2-3 hours due to delay in issuance of customs movement order as only one Customs officer is available for both terminals for import clearance.

At V.O.C the RFID is still under testing phase and not yet operational. Creation of a temporary facility for DPE near the marshalling yard has been planned. Shed no. 12 – Tamil Nadu Warehouse has been identified near the marshalling yard for facilitating DPE. However, setting up the document processing area for DPE will take few more months for completion, as the Tamil Nadu Warehouse (shed 12) has not yet transferred the asset to V.O.C port.

Case study 4 - Mumbai port

For imports, after the Customs officer gives the Out of Charge order, physical copy of the BoE is printed and gate pass is prepared as well, so that the importer/CHA can exit the port with the goods. The BoE is endorsed by Customs i.e. signed and stamped by the Customs officer, post which gate pass is prepared. At the gate, the Customs and CISF check the documents and the OOC document. The following documents are submitted at the gate:

- Importer's copy of the Bill of Entry
- Examination order and report
- Gate pass

For exports, the documents to be submitted at the gate by the exporter or CHA:

- Invoice
- Packing List
- Shipping Bill number

Port staff and the CISF personnel check these documents. The examining officer then does the examination and the report is entered into the system (ICES). The Customs examination then takes place in the warehouse within the port premises.

Status of RFID implementation at major ports

Sr. No.	Name of the Port	Status of RFID system as on 30.03.2017
1	Kolkata Port Trust	At Haldia Dock Complex (HDC), work order issued and trial run and software development is under progress. The system will be implemented by 31.03.2017. At Kolkata Dock System (KDS), tendering is under process.
2	Paradip Port Trust	Already operational since 25.09.2016.
3	Vishakhapatnam Port Trust	Work order issued and the system will be implemented by 31.03.2017.
4	Kamarajar Port Ltd	Already operational since 15.11.2016.
5	Chennai Port Trust	Pilot run of RFID based export document verification system is in operation for export container trailers entering into ChPT from 22.08.2016.
6	V.O.C Port Trust	Work order issued on 20.02.2017 and the system will be implemented by 21.04.2017.
7	Cochin Port Trust	Fully functional since 20.07.2016 at Ernakulam Wharf.
8	New Mangalore Port Trust	RFID based Access Control System started trial run from 01.03.2017. The system will go live from 31.03.2017.
9	Mormugao Port Trust	Already operational since 22.12.2016.
10	J.N.P.T.	Fully operational in all terminals.
11	Mumbai Port Trust	Work has been awarded. Installation & commissioning of devices like Flap Barriers, Boom Barriers, RFID readers, Biometric Readers is in progress. The work is expected to be completed by 31.05.2017.
12	Kandla Port Trust	The system will be fully operational from 01.04.2017.

Source: Lok Sabha Questions, Ministry of Shipping

Connectivity

A well-developed multi-modal logistics system and hinterland connectivity is essential for efficient and quick evacuation of cargo, and thereby increasing throughput and productivity of ports. Inadequate capacities and congestion in hinterland connectivity result in higher costs, delays in delivery, higher inventories and lower competitiveness of trade. Good connectivity is therefore indispensable to facilitate faster evacuation of cargo to or from ports, which in turn reduces the overall logistics costs of exporters and importers and enables faster cargo delivery to customers. However, weak hinterland connectivity remains a challenge for most of the Indian major ports, reducing accessibility *Over 40% respondents in 7 out of the 14 ports rated Quality of Transport relatedm operations as dissatisfied.*

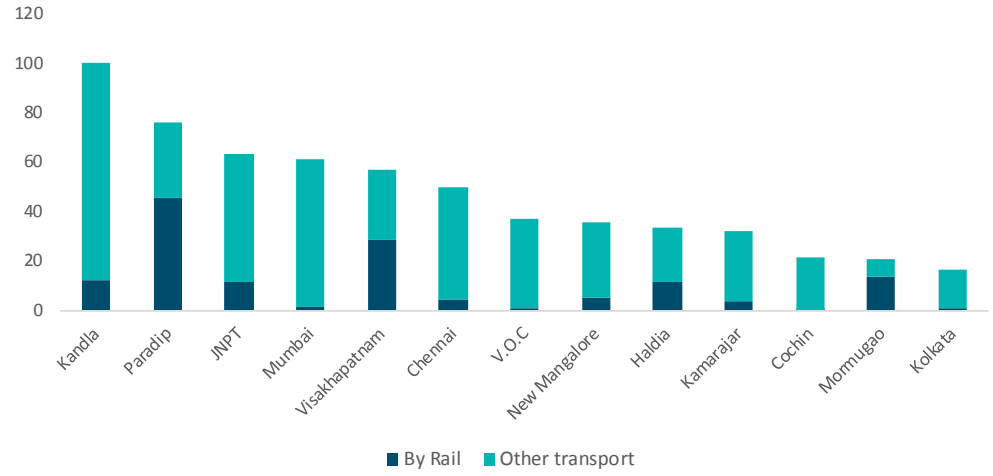
Greater cargo movement by road as compared to rail

Barring a handful of ports which transport a majority of their cargo by rail [Paradip (59%) Visakhapatnam (50%) and Mormugao (66%)], for the rest of the major ports, only a small percentage of total cargo traffic handled is transported by rail.

Higher rail freight rates in comparison to road freight rates is one of the major reasons discouraging trade from moving cargo by rail. Lack of reliable scheduling of freight trains, lack of ICD connectivity and last mile connectivity, as also the higher dwell time of rail are some of the other major deterrents in movement by rail.

Modal split of traffic at major ports (mn tonnes)

Note: Data for FY16; Source: IPA



Falling share of cargo movement by rail: Case study of JNPT

Operations: JNPT serves 50 different Inland Container Depots (ICDs) all over India. Additionally, there are rail movement to CFS which have rail connectivity.

Falling rail share: Since FY10, JNPT's rail share has been on a downward spiral; from 26% in FY10, rail share has declined to 13.9% in first quarter of FY18. This period has seen a significant drop in throughput of top 3 ICDS (New Delhi, Dadri and Ludhiana), from 115.9 '000 TEUs during FY10 to 49 '000 TEUs in FY17.

Major reasons for decline

- Higher freight rates: The substantial difference between rail and road freight rates is discouraging the trade from moving cargo by rail. E.g. moving a 40 feet container from Delhi to JNPT costs ₹ 70,000 by rail as compared to ₹ 50,000 by road
- Minimum freight slab of Railways of 50 kms is expensive: Owing to the short distance slab of Railways of 50 kms, even for a short distance of say 12 kms or 20 kms, the trade ends up paying a high freight charge. Rail fare to CFS in the vicinity of 20-25 kms is around ₹ 4,000, as against road fare of ₹ 2,500
- Insufficient rakes for short routes and for CFS bound containers
- High waiting time for locomotives: Present waiting time for locomotives is on an average 5 hours

Impact on business

- The average dwell time of import containers moved by rail is 3.93 days, as compared to 1.81 days for road
- The high handling time of rakes is attributable to absence of advance traffic forecast, higher number of mixed trains, and time taken for train examination and clearance of rakes by railways. Share of mixed trains has increased from 75% in FY07 to 95% by FY17. Turnaround time of mixed rakes (6 hrs 8 mins) is much higher compared to TAT of dedicated rakes (3 hrs 49 mins).

The rail borne containers from the NCR region have reduced in the port and have shifted to Mundra due to better connectivity, less distance and lower freight charges at Mundra.

Weak hinterland connectivity remains a challenge for most of the major ports

Cargo movement by rail: Kolkata port

- Share of rail: Inbound – 4%; Outbound – 8%
- Operational issues: Inadequate number of rakes for rail evacuation
- There is one CFS operated by CONCOR connected by rail
- The rake TAT at Kidderpore Dock System (KDS) is quite high, making road transport much shorter to key hinterland locations (e.g. Jamshedpur: Rake TAT @ 3 days; Road TAT @ 1-2 days)

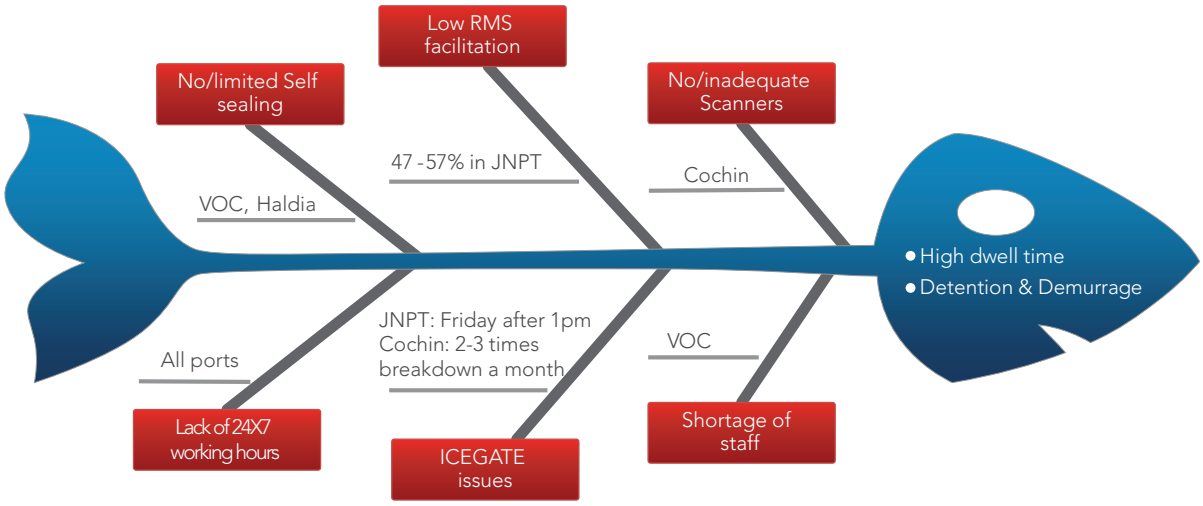
Inadequate hinterland connectivity & insufficient road infrastructure

- Hinterland connectivity is one of the key reasons that is restricting the flow of cargo to the port – New Mangalore port
- Congestion on approach road to the JNPT port due to road congestion and insufficient road lanes – JNPT
- Long queues of trucks start from Karalphaata itself, which is 5-6 kms away from the port; Trucks have to wait for 1-3 days for gate-in – JNPT
- Only one approach road is present; delay in completion of connectivity projects - Elevated corridor and Chennai-Ennore Port Road Connectivity – Chennai port
- Congestion upto 9 kms for entry into zero gate – Chennai port
- Transit time of 5 hours to 2-3 days from CFS to port gate – Chennai port
- Due to the insufficient no. of road lanes on port approach road, there is diversion of traffic to other ports (e.g. Hazira port) - JNPT
- No. of trips made by CFS trucks has reduced from 4 trips in 2009 to 1.5 trips – JNPT
- Only one gate (west gate) with single lane for export vehicles and single lane for import vehicles is being used by all trucks including Liquid, RO-RO, and other break bulk carriers – Kamarajar port
- Approach road to the port is narrow and in a bad condition. There are encroachments by hawkers near the gate. Lots of habitation near the port gate which causes cross flow of traffic. It slows down the whole process – Kolkata port

Less than 25% of the total cargo traffic handled at major ports (FY16) is transported by rail, causing pressure on movement by road and congestion issues. Insufficient availability of rail infrastructure, including number of rail lines, rakes/locomotives and frequency of services, cause high waiting time and thereby time delays to trade. This is a vicious cycle for the trade, as under-utilisation of the existing infrastructure results in frequent cancellations/unreliability in schedule, high waiting time, higher freight rates, and therefore, greater preference for movement by road. The trend of declining usage of rail transportation for containers movement to/from terminals not only leads to under-utilisation of ICDs in the hinterland but also creates congestion at ports.

2. Customs & Customs clearance

While several initiatives have been taken by concerned authorities and measures announced by the Government from time to time for facilitating doing business, exporters and importers continue to face several challenges in their day-to-day operations while dealing with various port ecosystem stakeholders. The major issues related to Customs and Customs clearance are less share of RMS facilitated bills, inadequate/non-availability of container scanners, shortage of staff and duplication of processes. These challenges along with the impact of these issues are discussed in detail in this section.



Over 30% of respondents in around 50% of the ports cited Efficiency of Customs clearance, Quality of IT infrastructure, Adequacy of scanners and Quality of Customs staff as a concern

Customs clearance

Efficient customs clearance procedure at the ports, which realises both objectives - trade facilitation and enforcement, is a critical factor determining predictability in supply chain operations, as inefficient procedures have a direct bearing on the time taken and cost incurred by trade. While significant strides have been made over the years with the implementation of best practices such as Single Window Clearance, Risk Management System etc, the results of the Dun & Bradstreet Port Performance Index Survey point to Customs clearance procedure as one of the major issues still faced by users (exporters, importers) across ports. The survey results show that more than 30% of respondents in 11 out of the 14 ports (for some ports, the percentage of respondents are as high as 63%) under study have identified customs clearance as a serious concern. Further, over one out of four times, detention and demurrage is incurred due to delays in customs clearance.

Over 1 out of 4 times, detention and demurrage is incurred due to delays in customs clearance

Infrastructure

Less automation – SWIFT and RMS systems

While the Central Board of Excise and Customs (CBEC) has implemented Single Window System, in a true sense the functioning of the system is quite different as not all clearances are given online and manual intervention is still prevalent. In certain cases, Participating Government Agencies (PGAs) still insist on submission of hard copies. In addition, the various layers in the SWIFT (a minimum of 7 layers) through which a Bill of Entry is routed results in additional delays in the clearance procedure.

While the time taken for customs clearance constitutes only a small percentage of the total time taken to import in the case of RMS facilitated Bill of Entry (B/E), the time taken for clearance increases significantly in the case of non-facilitated B/Es due to the requirement of physical examination of goods. The fact that the share of overall RMS facilitated B/Es is only upto 57% at JNPT, implies that the time taken for customs clearance for the remaining section of the trade was quite high.

Inadequate/non-availability of container scanners

There is a dearth of scanners to cater to the increasing traffic at the ports. Over 30% of the respondents in 12 out of 14 ports have rated adequacy of scanners as poor. Currently there is only one mobile and one fixed scanner at JNPT and there are no scanners at Cochin, Haldia and Mundra ports. Due to non-availability of scanners at Mundra port, containers are taken to Kandla for scanning. Inadequacy or unavailability of scanners results in physical examination of cargo and leads to inevitable delays in clearance procedures.

Besides inadequate physical infrastructure, issues related to the digital infrastructure, for instance frequent breakdown of the ICEGATE and inefficient helplines results in inefficiencies due to manual procedures and time delays in customs clearance processes.

Operations

While the broad focus has been on reducing the dwell time at ports, several deficiencies still exist which act as a hindrance in achieving that goal. It was observed that there are differences in the nature of operations at few ports such as limited acceptance of factory stuffed containers resulting in duplication of work. Over 30% of respondents in around 50% of the ports rated efficiency of Customs clearance process as poor. It was found that there is a shortage of customs staff across ports and further confirmed by the survey as over 25% of respondents in around 50% of the ports rated quality of Customs staff (including the availability of staff) as dissatisfied. These inefficiencies are summarised in the subsequent paragraphs.

Clearance of part-shipped containers

Currently, Customs does not give clearance for partially arrived containers i.e. multiple containers under one Bill of Lading (B/L) brought in parts to the ICD. Consequently, the containers are subjected to ground rent or demurrage and the clearance process starts only when all the containers in the consignment reach the ICD.

Duplication of processes

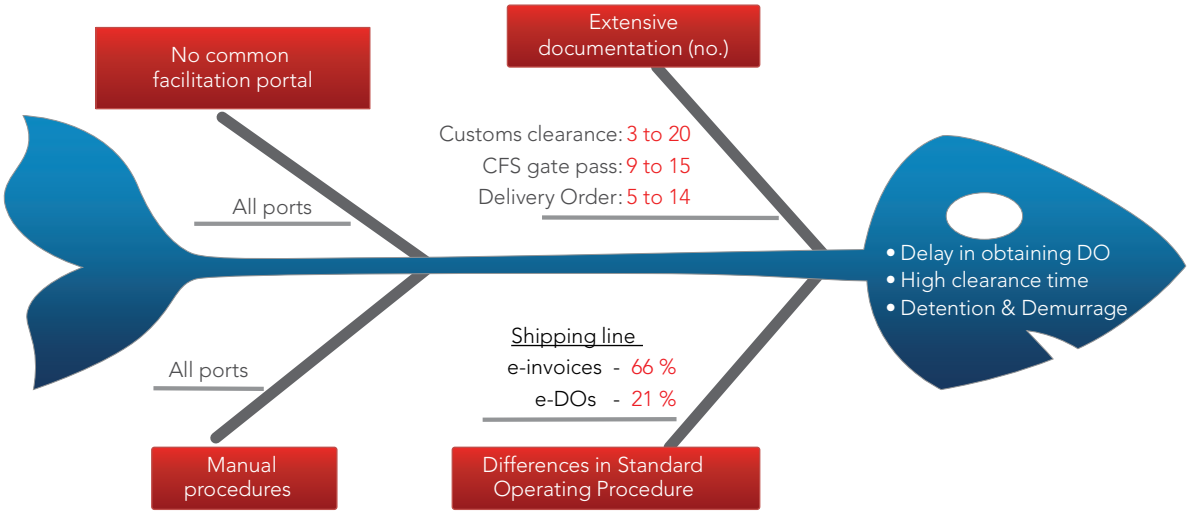
At V.O.C and Haldia ports, self-sealed containers are de-stuffed upon reaching the CFS. The cargo is examined, re-stuffed and then sealed again. Similarly, at JNPT the factory stuffed containers go through customs clearance processes again at the parking plaza, despite having been sealed in the presence of central excise staff. This results in duplication of processes and adds to the dwell time of cargo.

Shortage of staff

There is acute shortage of staff at certain ports and CFS. For instance, each Assistant/ Deputy Commissioner at the Jawaharlal Nehru Custom House is assigned to 3-4 CFS as against the normal practice of assigning each AC/DC to only one CFS. 24x7 operations of customs processes for exports does not happen at the JNPT parking plaza due to shortage of customs staff. At V.O.C port, there are long delays in obtaining container movement order from the customs due to shortage of boarding officers and the Container Movement Facilitation Cell does not work during the weekends, leading to longer detention of vessels. The Tuticorin Customs House faces a severe shortage of Officers, to the extent of 39% in the cadre of Inspectors and 25% in the cadre of Superintendents. Unavailability of adequate officers results in delayed customs clearance and escalated costs due to detention and (or) demurrage.

3. Documentation and paperwork

The extent of document requirements during both pre-shipment and post-shipment invariably affects the overall transaction cost, apart from being an important determinant of clearance time. While rationalisation of document requirements has been on the trade facilitation agenda for a long time, there is a great scope to further streamline procedures. Over 30% of the respondents in 11 ports expressed concern over cost incurred on documentation. Some of the underlying reasons that contribute to increased cost and time spent on document requirements are summarised in this section.



Operations

Requirement of multiple documents

Manual procedures, differences in SOPs, excessive documentation & lack of common online portal contribute to increased cost and time

While the mandatory number of documents required to import and export has been reduced to three, the additional documents/certifications for sector specific goods still remain high as compared to other countries. This problem is compounded when multiple copies of the same document have to be submitted to different stakeholders. Absence of a common integrated portal is a major cause for this duplication. As of 2016, the total number of documents for export is over 100 pages. The problem for exporters who source their raw materials from other countries is two-fold because there is a spillover effect from import documentation requirements. The number of documents required by each agency/ stakeholder also varies. For instance, the number of documents required to obtain a CFS gate pass ranges from 9-15 at JNPT. Shipping lines insist on KYC documents for every shipment despite the submission of required documents by an importer/exporter/freight forwarder during their previous shipment.

Inefficiencies caused by manual procedures

Absence of widespread adoption of digitisation initiatives such as issuance of e-Delivery Order, acceptance of e-payment and use of digital signatures causes additional paperwork. As evident from the below examples, prevalence of manual procedures is one of the core causes of delays faced at many stages.

- The use of hard copies of Arrival Notice and Customs Out of Charge at CFS increases the dwell time of cargo
- Endorsement on gate pass and EIR at the port gate leads to delayed gate-in of trucks
- Payment of amendment charges at cash counters instead of online remittance causes inconvenience and delays in customs clearance
- Insisting on hard copies of Bill of Entry by PGAs causes delays in regulatory clearance
- Large number of EGM and IGM errors are due to incorrect feeding of data in the EDI system

As a result, more number of staff has to be deployed by importers/exporters/freight forwarders/customs house agents to carry out procedures such as submission of documents/ certificates, leading to an increase in overall cost.

4. Regulatory clearance & lack of testing facilities

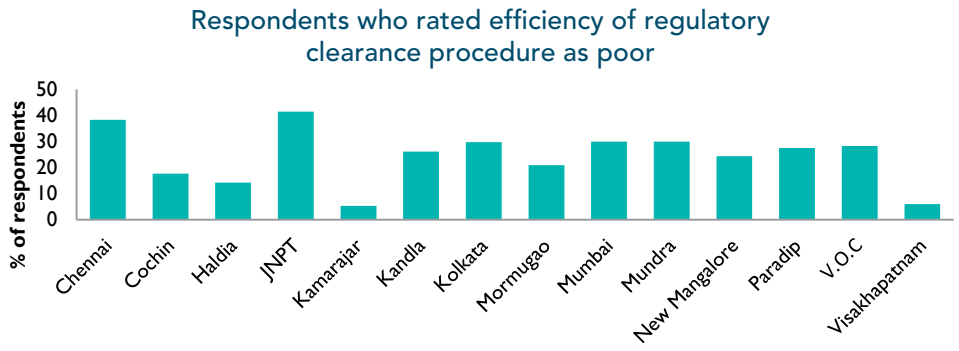
Under the "Ease of Doing Business" initiatives, the CBEC has set up the Single Window Interface for Trade (SWIFT) for trade facilitation, effective from 1st April 2016. The goal of SWIFT is reduction in the interface with allied regulatory agencies. SWIFT replaces 9 separate documents with one Integrated Customs Electronic Declaration. However, in spite of being a big step forward there are still some issues faced by trade.

Operations

Time taken by PGAs

Delay in obtaining regulatory clearance from PGAs has been mentioned as an issue across many ports. The delay in dispatch of sample and obtaining test report from PGAs has a domino effect on the entire customs clearance process.

Survey Outcome: Over 25% of the respondents in 8 of 14 ports rated "Efficiency of Regulatory clearance procedure (including testing labs)" as poor.



Source: Dun & Bradstreet Survey

At JNPT, for instance, the average time taken by Food Safety and Standards Authority of India (FSSAI) was 7.9 days [for issue of provisional No Objection Certificate (NOC)] in May 2017. For Drug Controller General (ADC), the average time taken was 4.2 days, for Textile Committee average time taken was 13.5 days, while for Wildlife Crime Control Bureau, the average time taken was 6.7 days for the release of NOC.

Members of trade also cited that in the case of import of items capable of dual use, the importers have to execute 'dual use bond' with Assistant Drug Controller (ADC) by approaching ADC Head Quarters in Mumbai, which takes 4-5 days for processing and NOC is granted after a week. This bond was earlier accepted at Jawaharlal Nehru Custom House. However, due to administrative reasons, clearance has to be sought from ADC HQ and regional offices as of June 2017. Filing of yearly dual bond with the regional ADC offices has been proposed as a solution but it is still under consideration.

The below table highlights the high time taken by some PGAs at JNPT and V.O.C Port (in Days)

PGA/Port	JNPT (as of June 2017)	V.O.C
FSSAI	7.9	3-4
Asst. Drug Controller	4.2	5
Wildlife Crime Control Bureau	6.7	5
Textile Committee	13.5	N.A.

Note: Time taken by PGAs at V.O.C based on interaction with Tuticorin Custom Brokers Association in July 2017.

Over 1/4th of respondents in over 50% of the ports rated efficiency of regulatory clearance procedure as poor

Challenges due to working hours of PGAs

The Customs department, under ease of doing business initiatives, has started providing 24x7 clearance facility to importers. However, Customs Out of Charge can be given only after certification from PGAs. Therefore, it is essential for the PGAs to be operating 24x7 as well. Customs has also directed that at least one representative from each agency be present even on holidays to facilitate speedy clearance. FSSAI, AQ and WCCB at JNPT were facing difficulty in deploying staff on 24x7 basis due to manpower crunch (November 2016).

Issues with trade

FSSAI at JNPT has mentioned instances where B/Es were pending due to inaction by the custom broker/importer after the initial acceptance by FSSAI on SWIFT. FSSAI authorities have conveyed that 52 such consignments are pending for more than two months and more than 200 consignments are pending for more than one month as of June 2017.

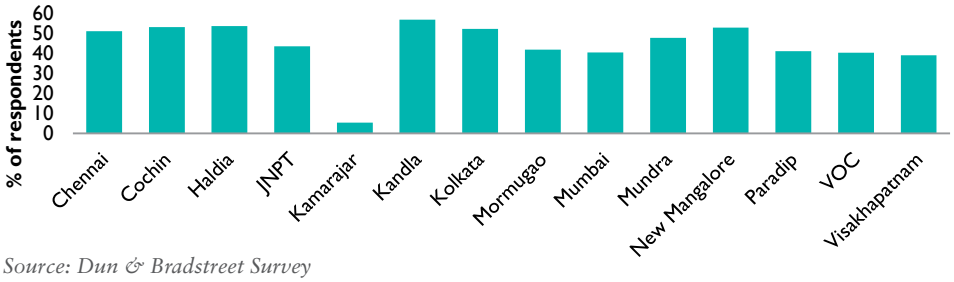
Infrastructure

Challenges due to location of PGAs

The location of PGA offices and testing laboratories is an important determinant of the efficiency of regulatory clearance process and the time taken. If the testing labs are located in the vicinity of ports, the dwell time of PGAs could be lesser on an average than if the labs were located far away.

Survey Outcome: Over 50% of the respondents in 6 of 14 ports rated "Testing Facilities & Laboratories" as poor.

Respondents who rated testing facilities & laboratories as poor



Source: Dun & Bradstreet Survey

At Haldia port, due to lack of testing facilities/laboratories nearby, FSSAI samples are required to be sent to Kolkata and the labs could be more than 100 kms away. Few samples have to be sent to Delhi and Bengaluru, transit over such long distances could easily take 2-3 days, thereby raising the time taken for clearance. As per the port-wise FSSAI lab locations provided on SWIFT, there are no specific labs for Haldia port. FSSAI labs located in Kolkata provide clearance to cargo from Haldia port as well. Nearly 54% of the respondents surveyed (trading from Haldia port) have cited presence of testing facilities and laboratories as an issue.

Challenges associated with SWIFT

As of now, six major allied agencies involved in issuing clearances or "No Objection Certificates" have been brought under the ambit of SWIFT for single integrated declaration. These six agencies are FSSAI, Drug Controller, Plant Quarantine, Animal Quarantine, Textile Committee and Wild Life Crime Control Bureau. However, there are total 19 agencies providing clearance for maritime trade in India but many are not on SWIFT yet. One such agency is Spices Board of India providing clearance at V.O.C Port.

In spite of having a single integrated declaration on SWIFT, many agencies are still providing manual clearance thus undermining the initiative. At Kolkata port, despite being on SWIFT, manual documents have to be submitted to Plant Quarantine. Due to this, trade is unable to meet the document submission cut-off time of 12 p.m., resulting in delay in the clearance process.

FSSAI at Cochin port received approximately 20-50 Bills of Entry per month for manual processing from Customs in November 2016. When the customs broker or the importers approach FSSAI for manual NOC via e-mail, FSSAI, with the primary data available, gets the remaining data updated by the custom broker/importer online and gives NOC in hard copy. As these B/Es are not released under single window, no further data is available in the system. As a result, FSSAI has to maintain two systems, defeating the purpose of SWIFT. At Mumbai port, as of January 2017, Textile Committee was forwarding only 10% of the test reports online.

Importers are also unable to track the status of their B/Es on SWIFT (once having applied for regulatory clearance). At Mumbai port for instance, once the sample is sent for testing to Animal Quarantine Certification Service (AQCS), provisional NOC is provided on ICES against 'No-use bond' given by the importer and the final NOC is given on hard copy of B/E. Many importers do not appear for final clearance even after the testing reports are received by AQCS. The consignment status is unknown after the provisional NOC stage as the B/E is not reflected in the system post that stage.

5. Digital Infrastructure

Not only is the physical infrastructure of the Indian ports sector in dire need of an overhaul, the digital infrastructure also needs to be upgraded to improve efficiencies and ease of doing business. The dissatisfaction among the port users on account of the quality of digital infrastructure is also mirrored in the survey results. The survey results show that more than 25% of respondents in 9 out of the 14 ports (for some ports, the percentage of respondents are as high as 42%) under study have rated quality of digital infrastructure as a serious concern.

Over 1/4th of the respondents in more than 50% of the ports rated quality of digital infrastructure as a concern

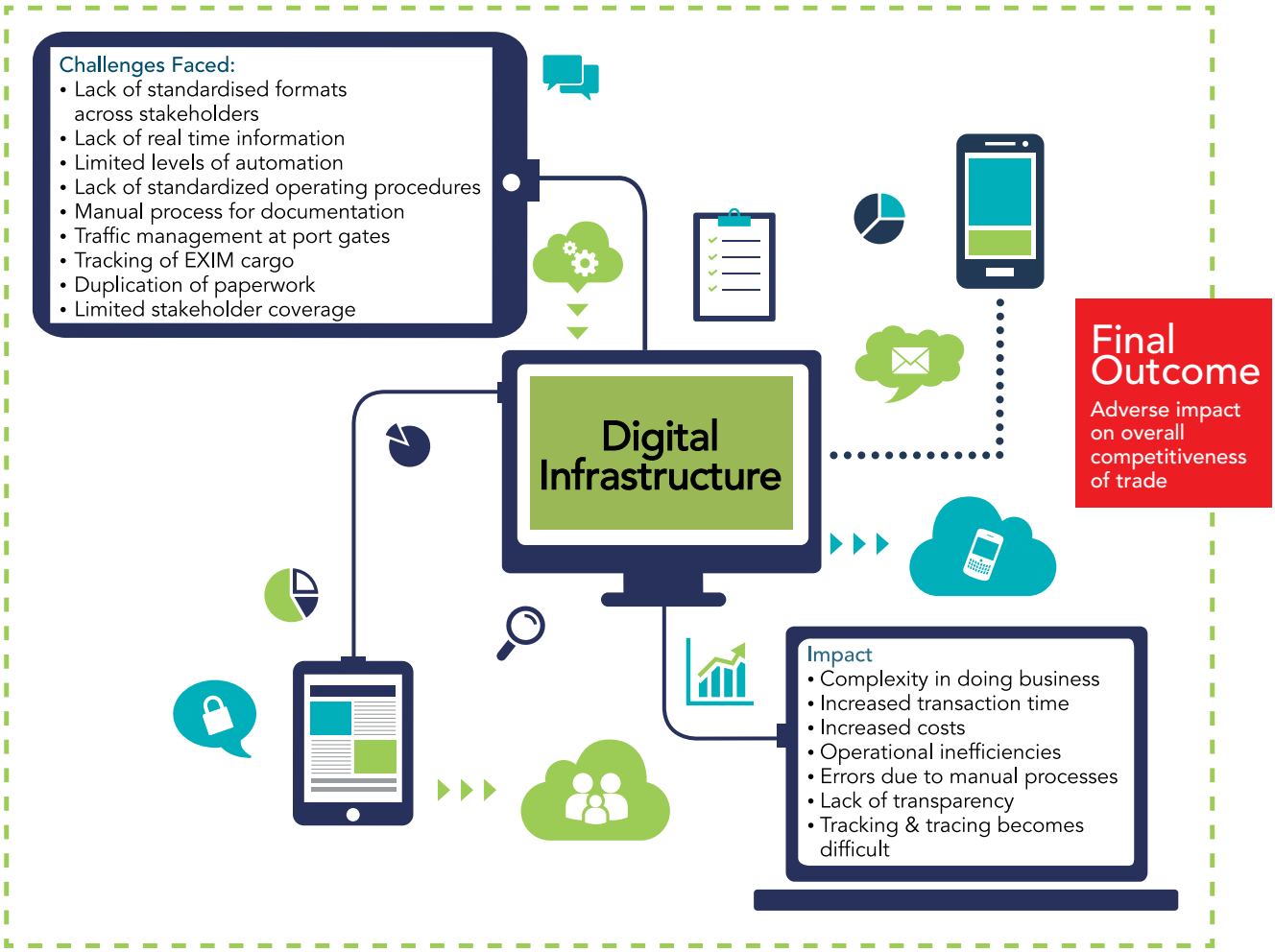
While expansion of cargo handling capacity of the ports will address certain key issues, a robust digital infrastructure can help improve productivity and efficiency at ports. Upgradation of digital infrastructure is as critical as physical infrastructure for sustainable growth of industrial and trade sectors.

Although ports and port terminals have undertaken basic automation of terminal operations and other functional areas, the automation largely remains piece-meal and there is lack of integration. The IT solutions work in isolation and do not interact with each other in the absence of a common integrated platform for information exchange and conducting business processes.

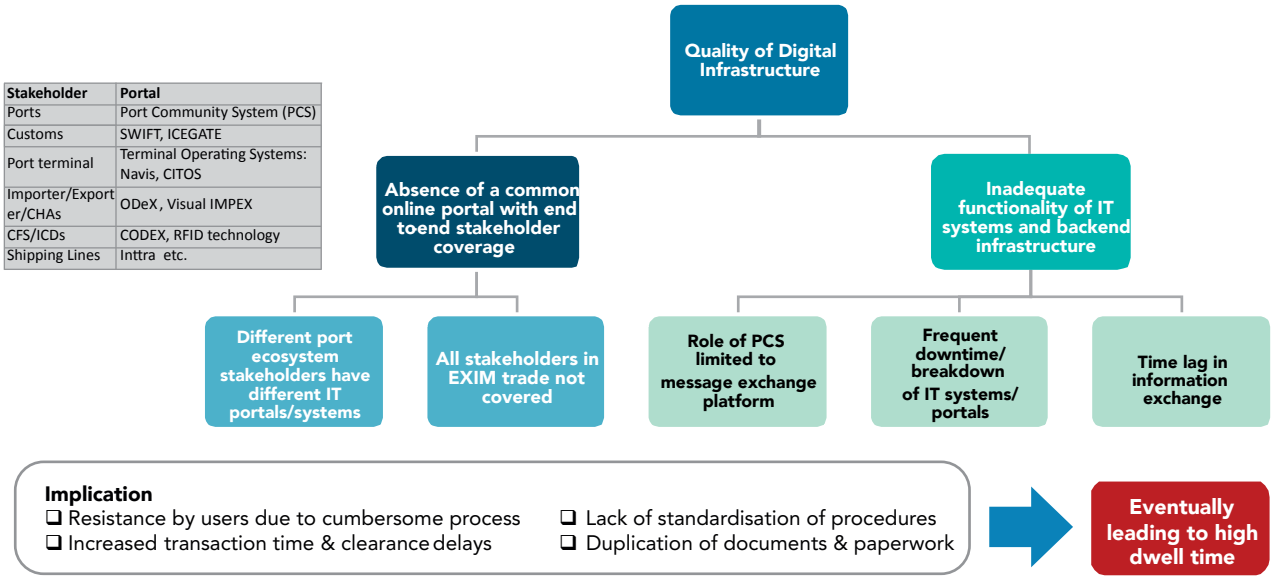
Some of the key issues pertaining to the existing state of digital infrastructure and its impact on trade are discussed in detail below:

Absence of a common online portal with end-to-end stakeholder coverage

In the present scenario, the different stakeholders in the port ecosystem are using different IT systems/portals. There is no common online portal which has all the EXIM stakeholders onboard. The Port Community System (PCS) for instance, in its current state lacks in bringing together all the concerned stakeholders, and enabling two-way, real-time exchange of information. Further, a time lag in information exchange has been cited by users. The survey results echo these facts. Over 25% of respondents in 7 out of 14 ports rated Level of integration/Co-ordination of various services/agencies as dissatisfied.



Stakeholder	Portal
Ports	Port Community System (PCS)
Customs	SWIFT, ICEGATE
Port terminal	Terminal Operating Systems: Navis, CITOS
Importer/Exporter/CHAs	ODeX, Visual IMPEX
CFS/ICDs	CODEX, RFID technology
Shipping Lines	Inttra etc.



PCS breakdown

- PCS downtime of 2-3 hours; frequency of breakdown ~4 times a month – V.O.C Port
- PCS slows down during the peak hours or message transmission is very slow – V.O.C Port
- No waiver of penalty for late filing of B/E though the delay is caused by the breakdown of ICEGATE – V.O.C Port
- Only vessel related messages are exchanged through the PCS – Chennai Port
- Only 1 company does payment through PCS; 7 banks are currently present on PCS – Kamarajar Port
- Time lag of around 30 minutes for IGM, B/L, Out of Charge and LEO related messages between PCS and Customs - Mumbai Port

Different stakeholders in the port ecosystem have different IT systems leading to lack of standardisation of procedures

Different port ecosystem stakeholders have different IT portals/systems. The table below depicts the multiple IT systems/portals used by the various stakeholders:

Stakeholders	Portal
Ports	Port Community System
Customs	SWIFT, ICEGATE
Port Terminals	Terminal Operating Systems: Navis, CITOS
Importer/Exporter/CHAs	ODeX, Visual IMPEX
CFS/ICDs	CODEX, RFID technology
Shipping Lines	Inttra, etc

Inadequate functionality of IT systems and backend infrastructure

The back-end infrastructure supporting the existing digital platform is inadequate to meet the requirements of the trade. Users have cited frequent occurrences of breakdown of ICEGATE, the ecommerce portal of the Central Board of Excise and Customs. Lack of adequate back-end support (e.g. lack of responses or delays in resolution of queries) in terms of efficient helplines is adding to the existing woes of the users. There is a need to have dedicated helpline personnel who are available to interact and solve queries of users.

ICEGATE breakdown

- Frequency of breakdown of ICEGATE: Usually on Fridays there is a breakdown after 1 p.m. – JNPT
- Frequent breakdown of ICEGATE system is severely hampering the timely clearance of import and export clearance - JNPT
- ICEGATE slows down between 12 p.m. and 4.30 p.m. There is no help desk facility in case of ICEGATE breakdown – V.O.C port
- Breakdown of the ICEGATE portal is a major problem faced. At least 2-3 breakdowns in a month – Cochin port

Impact: Having to transact on multiple online portals combined with lack of standardisation of procedures, along with existence of both manual and electronic operations, results in duplication of documents and paperwork, i.e. multiple exchange of same documents among various stakeholders. This has resulted in cumbersome process for the users to access and track their consignment on separate IT portals, as also duplication of documentation and paperwork. Further, inadequate functioning of the EDI systems/ICEGATE etc makes timely submission of documents difficult, thereby increasing transaction time and leading to clearance delays.

This in fact has led to resistance from users in using the IT platform, and preferring the manual documentation processes, thereby resulting in additional transaction time and costs. The CHAs for instance have to register separately on each shipping lines' website, and each shipping line has different payment portal and registration process. In the case of JNPT, only 50-60% CHAs are using e-DO facility, although most shipping lines have e-DO facility.

From the service providers' perspective, be it the terminal operators, shipping lines, CFS etc, lack of a common online platform translates into lack of multi-directional communication as also a time gap in information exchange, which is necessary given the complex web of operations of the multiple stakeholders involved.

6. 24X7 OPERATIONS OF STAKEHOLDERS

The port eco-system consists of several stakeholders having different roles, each equally important for smooth operations of the entire system. For the system to work like a well-oiled machinery, it is important that operating hours of the different stakeholders overlap

to a large extent if not completely. Under the "Ease of Doing Business" initiatives, one of the measures was provision of 24x7 clearance facility to the trade. Customs has extended 24x7 customs clearance to all Bills of Entry and not just facilitated Bills of Entry; also no Merchant Overtime fee (MOT) is required to be collected in lieu of the services rendered by Customs officers at 24x7 customs ports, airports and CFSs attached exclusively with these ports. In order for this initiative to work on ground, all stakeholders must be present for all critical processes so that speedy cargo clearance is not hampered, resulting in time and cost advantages for trade.

Shipping lines: In our interaction with various stakeholders for this study, members of trade opined that shipping lines are not operating round the clock. Many shipping lines do not operate beyond 3 p.m. and their offices are not open on weekends. Unavailability of shipping lines often leads to delay in documentation like issue of delivery orders. This delay subsequently impacts cargo clearance, often leading to levy of demurrage.

Container Freight Stations (CFS) form an integral part of the maritime cargo clearance eco-system. CFSs were developed as an off-dock extension of the port to decongest ports. They also provide space for stuffing/de-stuffing and consolidation of cargo. Many CFS do not operate 24x7; at V.O.C port one CFS operated by CONCOR operates round the clock and at Chennai port 3 CFSs operate 24x7. Working hours of CFS, availability of adequate manpower and equipment has bearing on documentation and efficiency of cargo evacuation. Another challenge faced is CFS not accepting payments 24x7. Several CFSs reportedly do not receive payments post 8 p.m. Many factors such as late receipt of Delivery Order from the shipping lines, delayed Out of Charge from Customs etc. could lead the importers to make payments to CFS at night or outside the conventional working hours. Therefore, round-the-clock acceptance of payments would enable speedy cargo clearance and evacuation.

Back-end infrastructure supporting the existing digital platform is inadequate to meet the requirements of trade

For success of 24x7 customs clearance, all stakeholders must be present for all critical processes to ensure speedy cargo clearance

Customs: The Customs department has been lauded for proactive mitigation of issues faced by traders. While the Customs department usually operates during standard working hours, for instance Mumbai Customs operates from 9:45 a.m. to 6:30 p.m, officials are deployed beyond official working hours on a case to case basis. However, Customs officials are often not available round the clock for providing clearances (as stated by stakeholders). Further, shortage in the number of customs officials (like appraising officers) at ports and CFS especially during night hours also delays the clearance process. For instance, Tuticorin Customs House faces shortage of officers of 39% in the cadre of Inspectors and 25% in the cadre of Superintendents. This delay often leads to additional charges like detention and/or demurrage.

Few things not working on ground…

The government has taken various initiatives to facilitate trade. However, interactions with stakeholders revealed that few of these initiatives have not yielded the desired quantum of output as envisaged. The results of the primary survey have also corroborated this. One such instance is the Direct Port Delivery initiative which has not met the set target by 2016. Further, the opacity in operations of shipping lines and charges levied by them are adversely impacting exporters and importers, and measures taken to tackle these challenges have not been sufficient. Thus, it becomes necessary to identify the issues and loopholes, as they have a direct bearing on logistics cost and time. These concerns, along with other issues related to tariff regulation, cabotage laws and Container Freight Stations are discussed in this section.

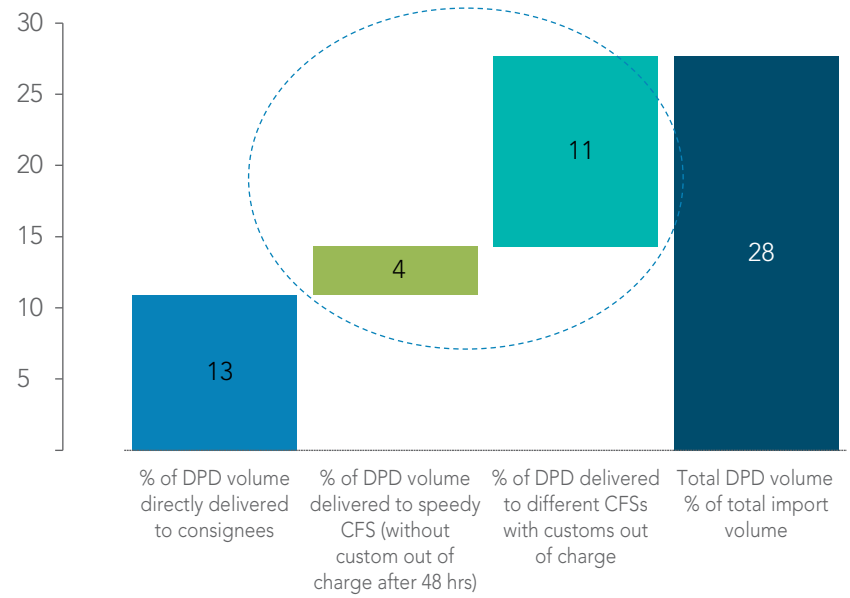
7. Direct Port Delivery & Direct Port Entry Operations

Direct Port Delivery (DPD) has not performed as anticipated despite being a novel initiative. It was envisaged as "Wharf to Importer's Warehouse" clearance, taking no more than 2 days from cargo offloading at terminal to the importer's place directly. Although the target for DPD was 40% by 2016 and 70% by FY18, the present share of DPD is much lower. At JNPT and Chennai, DPD accounted for just 28% and 16% of the total imports, respectively, as of June 2017. Further, at JNPT, out of 28%, approximately only 13% of the deliveries were made directly to the consignees. The remaining 15% of DPD deliveries were from CFS (including Speedy CFS post 48 hours); this is self-defeating as the main objective of DPD was to by-pass container freight stations (CFS) offering time and cost savings to trade.

At Chennai port also, DPD clients prefer to take delivery from CFS and storage at CFS turns out to be much more feasible as delivery for CFS from port takes place on 'best pick' basis without any shifting. CFS bound import containers are stacked CFS-wise to facilitate en-bloc movement, while direct delivery from terminal requires additional shifting, resulting in additional costs to the importers (i.e. shifting charges).

One of the key reasons for reluctance of importers towards adoption of DPD is the charges levied on importers by ports, terminals and shipping lines. At JNPT, the private terminals demand heavy deposits ranging from ₹ 50,000 to ₹ 10 lakh from DPD clients, thus discouraging importers from signing up for DPD. One of the terminals at JNPT in their revised DPD policy as of March 2017 is 'encouraging' importers to maintain deposits (not-mandatory) upto ₹ 5,00,000 (depending on the number of containers) with the terminal to prevent any delay in the movement of containers. As of November 2016, terminals and shipping lines were levying 25 charges, and which were not uniform varying

Performance of DPD at JNPT



Source: CFSAI

from line to line. Importers have reported of a terminal operator levying additional charges for DPD cargo at JNPT, whereas the same terminal operator did not levy any additional charge for DPD cargo at the Chennai port (CCFC meeting dated 31.01.2017).

Another challenge faced by DPD clients is the shifting charges levied by terminals. Many importers have opined that terminals levy charges for more than the required number of shifts. At JNPT, an importer availing direct port delivery since 2008 discontinued availing DPD in 2015 due to terminals levying two shift charges for the same cargo as opposed to single shift charge for non-DPD cargo (CCFC meeting dated 31.01.2017). These extra charges have raised the costs for many DPD importers. Importers at JNPT opined that per container cost has almost doubled to ₹ 15,000 after availing of DPD facility from ₹ 7,000 per container earlier, (CCFC meeting dated 31.01.2017). In addition to this, even the transporters are demanding additional payments for long waiting time due to DPD. There has been some deliberation on standardisation of shifting charges across terminals at JNPT. However, no concrete decision has been taken in this regard. Such a proposal could bring certainty in charges for trade.

Owing to space constraint at terminals, DPD clients sometimes need to hire space in warehouse or CFS after obtaining clearances. Many importers stated that terminals collect Additional Service Request (ASR) charges for change of CFS code, which escalates the costs for DPD clients, even though as per the Customs department, once the CFS has already been nominated by the clients, terminals should not levy any charges (CCFC meeting dated 31.01.2017).

Procedures for DPD vary across ports; this may also be a reason for confusion amidst importers and reluctance to adapt quickly. For example, while the free period at JNPT is 48 hours, the same at Chennai port is 72 hours. Variations in the DPD procedures and documentation across ports cause operational issues for DPD clients. DPD importers have trouble in procuring Delivery Order from the shipping lines when the container delivery location changes. Many a times, post the free period, when OOC have not been given by the customs and the DPD containers have to be shifted to the designated CFSs, the importers have to obtain a second Delivery Order with the CFS as the location instead of terminal. Consequently, the importer has to incur cost for obtaining the Delivery Order as well as ground rent (or demurrage) for the container at the CFS, which increases transaction cost.

Many terminal operators levy more than the required number of shifts, leading to higher cost for trade

The importers also face difficulty in submission of original Bill of Lading to the shipping line, prior to filing of Import General Manifest (IGM). Although, for some ports, the shipping lines accept electronic B/L but usually, the shipping lines still insist on physical copy of B/L, citing compliance to the Bill of Lading Act. The entire process of receiving original B/L could approximately take a period of 12 days. Thus, at times it becomes difficult for importers for timely submission of the original Bill of Lading, especially in cases of shorter vessel transit time from ports such as Dubai, Karachi and China.

Challenges caused by importers

To some extent, the slow pick up of DPD could be attributed to certain practices followed by importers. For instance, many a times, importers delay filing the advance Bill of Entry. It has been observed that they are unable to make financial arrangements in order to pay duty on time. Even though advance filing of B/E has been made mandatory, yet imposing penalties does not seem to be sufficient to curtail this issue. Further, many a times, the trade has been reported to misuse the free period provided at CFS. They often use CFS as a storage facility as it turns out to be more economical. Presently, DPD importers inform the

shipping lines about the nature of the delivery (whether DPD or not) via email. Importers often do not apprise the shipping lines well in advance regarding DPD delivery, as a result shipping lines have to re-file IGM due to errors in the destination mentioned on the IGM.

Infrastructure

The issue of incurring additional cost in DPD gets further compounded at JNPT, which was not built for handling huge container volumes within port premises, having been designed on a CFS model. The limited buffer area at terminals is not sufficient to cope with the increasing container volumes on account of DPD, resulting in congestion. As the DPD volumes are increasing at ports, the storage space at terminals is being increasingly occupied by containers designated for DPD. Thus, many a times, entry of export containers gets delayed due to congestion. Therefore, mitigating the problem of congestion could also prove to be a positive step towards promotion of Direct Port Entry (DPE). Trade is of the view that DPD would aggravate the underlying issue of congestion at ports.

Direct Port Entry

DPE has been an initiative promoted by the Customs department to facilitate exporters. This initiative has not seen significant growth, mainly due to the shortage of storage space at terminal buffer yards which causes congestion, thereby increasing the cost of DPE for the trade. At Chennai and V.O.C ports, nearly 60% and 45%, respectively, of export volume are factory stuffed; however, the trade is unable to take the cargo directly to the ports owing to insufficient space. Therefore, they still route their export cargo through CFS. At JNPT, the terminal yards are facing increased container volumes as a result of DPD. While, the DPD containers are moved to designated CFSs post 48 hours, these containers are stored in the terminal yard after unloading. The operational challenges associated with congestion and the resulting implication on cost often discourages exporters from opting for DPE.

8. Shipping Lines & CFSs practices

Operations

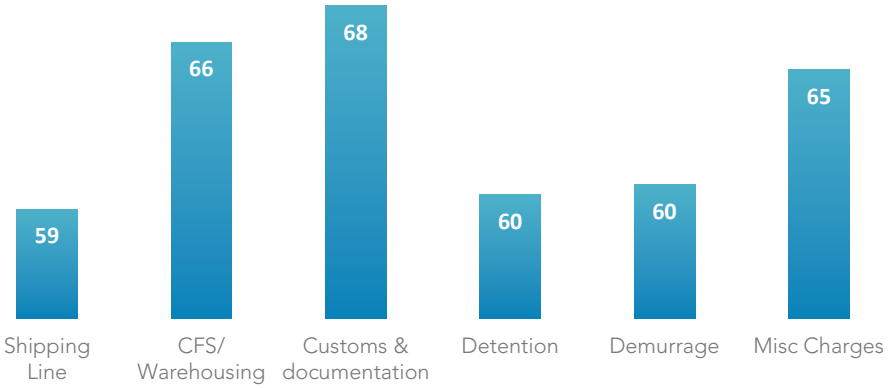
Shipping line charges

It is pertinent that there exists total transparency in the transaction cost for trade. EXIM has been facing great volatility in the charges levied by shipping lines/NVOCCs/Shipping agents & Console Agents. The charges levied are ambiguous and lack clarity as the scope of services is not defined clearly. These sometimes lead to excess charges and overlapping of charges levied by shipping lines and the CFS. For example, the charges levied by different shipping lines vary for the same terminal. Often exporters dealing with LCL cargo face non-uniformity in charges compared to FCL cargo. The various categories such as Off dock charges, equipment imbalance charges, washing charges, cleaning charges, port congestion surcharge, document processing charges, maintenance & survey charges, etc. lack clarity. These result in increase in overall transaction cost.

- As per our survey the average cost incurred on port logistics as a percentage of the total value of consignment is 15%
- Shipping line charges holds the largest share i.e. 36% of the port logistics cost
- The survey reveals that upto 71% of the respondents cited shipping line issues and charges as a concern

Port logistics cost is nearly 15% of the total value of consignment, and of this, shipping line charges account for 36% of the port logistics cost

Shipping line charges score the lowest amongst the other charges



Source: Dun & Bradstreet Survey

For the sake of transparency, various trade associations have requested concerned authorities to make it mandatory for the shipping lines to mention and quantify the charges in the Bill of Lading and recover only those respective charges. This would be on similar lines as mandated by Sri Lanka and Bangladesh to the shipping lines that all charges levied by them on importers be specified in the Bill of Lading, when issued from origin. This brings in certainty and transparency in charges, as currently, shipping lines charges constitute the greatest share of logistics cost.

Shipping line charges as per original invoices at NSICT (JNPT) (₹)

Head/Shipping line	For CFS bound containers			For DPD containers		
	Hapag-Lloyd	CMA CGM	NYK Line	Hapag-Lloyd	CMA CGM	NYK Line
Terminal handling charges	10,000	10,150	9,025	10,000	10,150	10,125
Lift on lift off charges	1,100		1,100	1,100	1,200	
Extra handling charge	1,000			1,250	1,500	
CFS nomination charge	12,000					
Cleaning charge			950	4,000	1,400	950
Container monitoring charge	4,000		1,000			1,000
Delivery order/Import documentation fee	4,500	4,950	5,000	4,500	4,750	4,000
Container inspection and Survey fee		4,800				
RFC			14,000		500	
Value added surcharge		3,000				
Mandatory user charge			1,250			
Emergency port surcharge					8,724	2,903
Shifting charge				2,708	2,708	2,708
Total cost	32,600	22,900	32,325	23,588	30,932	21,686

Source: "Study on timeline of export and import of containers through the JNP", FIEO

In response to the demand raised by trade bodies, an advisory for bringing in transparency in transaction costs in EXIM trade was issued by the Directorate General (DG) of Shipping. The Ministry of Shipping constituted a committee in February 2016 to identify and address grievances that have arisen in the calendar year 2015. The committee comprised of representatives from shipping lines such as Shipping Corporation of India Ltd (SCI), the Container Shipping Lines Association (CSLA) and other stakeholders such as the Federation of Ship Agents Association (FEDSAI) and various other entities drawn from the import/export trade bodies such as Inland Importers & Consumers Association (IICA), Metal Recycling Association of India (MRAI), Mumbaizone Brokers' Association (MBA), Northern India Shippers' Association (NISA), Western India Shippers' Association (WISA), etc. The committee considered the issue of transparency and reasonableness of various charges levied by the shipping lines/carriers for the carriage of EXIM goods. In a series of meetings held in this regard during the period February 2016 to April 2016, a consensus was arrived upon among the stakeholders and they unanimously recommended that certain category of charges should not be levied by shipping lines/carriers. The list comprised of 25 charges. Consequent to that, DG Shipping issued a circular dated September 7, 2016, which stated that the list of 25 charges should not be charged by the

shipping lines. Subsequently, a clarification to the above circular was issued in December 2016, which stated that 'no new charges should be levied or the charges held as non-leviable in the advisory should not be re-introduced with a different nomenclature'.

Charges not to be levied by Shipping Lines as per DG Shipping Circular	
1. Winter season surcharges	14. Urgent examination charges
2. Survey charges	15. ENS charges
3. Lo lo charges	16. Late DO release charges
4. Cost recovery charges	17. BL print charges at destination
5. Vessel traffic charges	18. DO revalidation charges
6. Container monitoring charges	19. Import General Manifest (IGM) charges
7. Detention invoice release charges	20. Empty return at different port charges
8. Late DO charges	21. Empty yard offloading charges
9. CFS receiving charges	22. Destuffed delivery charges
10. Supply chain security fee	23. Inland Hauling Charges (IHC)
11. CBL pass through charges	24. Terminal Handling Charges (THC)
12. Warehouse special charges	25. Change of Destination (COD) charges
13. Transporters union charges	

Lack of transparency and ambiguity in charges levied continue to adversely affect exporters/ importers

Shipping lines continue to levy certain charges despite prohibition imposed by DG Shipping

- Out of the 25 charges that are not to be levied as mentioned in the DG circular No 1 of 2016, shipping lines continue to levy some of the charges (E.g. Survey charges, Container lift on lift off charges, etc)
- Also, charges held as non-leviable in the advisory have been re-introduced with a different nomenclature. For example, 'Container administration fee' has been levied instead of 'Container monitoring charges'.

Ambiguity in charges

- Both Terminal Handling Charges (THC) and lift on lift off (Lolo) are simultaneously charged in certain cases
- High security deposit for preferred CFS movement, to the extent of ₹ 1,50,000 per TEU for preferred CFS movement – resulting in blockage of working capital. Also security deposit of blank cheque in case for issuance of Delivery Order in Nhava Sheva

- Terminal assistance, facilitation & process fees, carrier charges
- Charges such as container administration fee, equipment imbalance fee, mandatory user charge etc. are levied
- Port charges along with THC are levied for a DPD customer. Seal charges for DPD customers
- THC vary for each shipping line for the same terminal
- Emergency port surcharge quoted by different shipping lines show considerable variance
- Multiple charges pertaining to documentation such as Delivery Order charges, House BL Manifest charges along with documentation charges amounting to around ₹ 10,500 per TEU container

Differences in charges

- THC levied by shipping lines to importers are almost double the charges imposed by the Port authorities/terminals to the shipping lines (Kolkata and JNPT)
- LCL cargo – Value of invoices raised for LCL cargo are sometimes 93-100 times higher than the FCL cargo (Kolkata)

Invoice of an FCL cargo (7* 20 TEU; 20 TEU ~ 24 CBM)

From	Novorossiysk	
To	Kolkata	
Cargo	7*20 DV	
Charge description	Rate per unit (unit in INR)	Invoice Amt (unit in INR)
Terminal handling charge - destination	8,400	58,800
Cleaning & washing	2,250	15,750
Facilitation processing fees	1,500	10,500
Doc fee	5,000	5,000
Total charges		90,050
Various taxes		13,509
Total charges		103,559

Invoice of an LCL cargo (0.29 CBM)

From	Singapore	
To	Kolkata	
Cargo	0.29	Volume (CBM)
Charge description	Rate per unit (unit in INR)	Invoice Amt (unit in INR)
Delivery order fee	3,500	3,500
Destuffing charge	550	550
Documentation fee	1,500	1,500
LCL charge	1,050	1,050
Survey/s.G.S inspection	500	500
Terminal Handling charge	1,939	1,939
Deconsolidation charges	2,000	2,000
CAF	780	780
Port Congestion surcharge	12 (in USD)	790
Total charges		12,609
Various service tax		1,726
Total charges		14,335

Most shipping lines do not operate on weekends, thereby delaying issuance of DO and leading to demurrage charges

Operations of shipping lines

Shipping lines prescribe different set of documents and varying security deposits for issuance of DO. The working hours also vary with most of the shipping lines not working on weekends, which delays the issuance of DO and leads to demurrage charges.

Working hours of the shipping lines

Shipping line offices do not operate on a 24x7 basis, hence do not accept payments on a 24x7 basis. Many shipping lines do not operate beyond 3 p.m. and their offices are not open on Saturday & Sunday. In V.O.C, shipping lines work only from 9.30 a.m. to 5.30 p.m., with 4 p.m. as the cut off time for processing documents. Moreover, in V.O.C, 50 shipping bills out of 500 shipping bills have some error due to wrong data entry by the shipping lines. This is one of the main problems in documentation. It is the need of the hour that shipping lines should align their working days/hours at least with the Customs working days/hours to facilitate trade.

Timings for issuance of Delivery Order / Release of BL by Shipping lines

Currently, shipping lines have restricted timings for issuance of DOs. Also, different shipping lines have different timings for issuing DOs. Besides, certain shipping lines do not send online message to the custodians immediately after issuing the DOs and take considerable time to send the message. DOs are not issued by the shipping lines on the

same day when the documents are submitted by the importers/CHAs/freight forwarders. The delay in issuance of DO often inflates cost for trade in the form of demurrage/ground rent. At JNPT, for instance in June 2017 approx. 34.9% of the DOs were issued 48 hours after vessel arrival. Concerns have been raised by EXIM over delay in acknowledgement of online payments being made to the shipping lines because of which they prefer paying by demand draft. This requires deployment of additional manpower and time by importers/ CHAs. Advance DOs are not being issued by most of the shipping lines. It should be made mandatory for the shipping lines to issue the DO for DPD goods either in advance or within 48 hours, provided the importers submit the necessary documents and make payments to the shipping lines.

Manual invoicing & DO prevalent

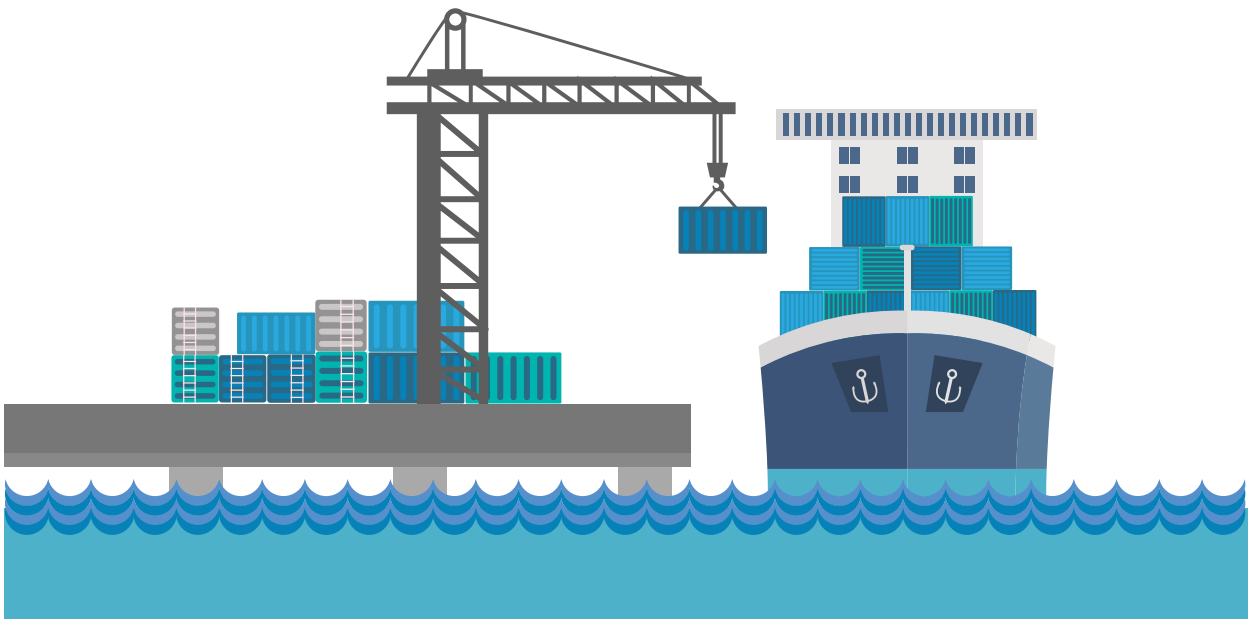
Manual invoicing & Delivery Order by shipping lines are still prevalent. Even as the quantum of E-invoices and E-DOs have gone up in the recent period, it remains inadequate. According to CSLA, the quantum of E-invoices as of June 2017 stood at 66%, although recording an increase from 59% in May 2017. The number of E-DOs issued by shipping lines were 21% in June 2017 which also witnessed an increase from 15% in May 2017. Moreover, every shipping line has different payment portals and different registration process and EXIM has to register on every shipping line website separately, which leads EXIM towards manual mode of DO.

Execution of bond and security deposits with shipping lines

There exists divergent practice with the shipping lines on execution of bond and security deposits towards movement of import containers for de-stuffing at the premises of the importers after customs clearance.

Non- standard KYC norms adopted by all shipping lines

Different shipping lines follow different KYC norms and ask for number of documents for KYC. Moreover, certain shipping lines ask for KYC for every shipment in spite of the fact that the importer has already submitted KYC for his earlier shipment.



9. Issues related to Container Freight Stations (CFS)

Indian ports are not equipped or built to handle the growing containerised trade in terms of space and infrastructure. In order to decongest the ports as containerised trade gathered momentum in the mid-80s, the Government conceptualised the CFS model, where all the activities related to clearance of goods, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export and transshipment can take place. Thus, CFS provide the Off dock storage and clearance facilities where containers are stuffed, de-stuffed, and segregation of import/export cargo takes place. In the recent past, concerns have been raised by EXIM regarding the charges levied by the CFSs and their operations. Charges are high and vary considerably between CFSs and at times lack clarity.

As per D&B's survey, upto 66% of the respondents cited CFS charges as a concern for trade and upto 44% of respondents stated that they were not satisfied with the overall operations of the CFS.

Upto 41% of respondents rated the quality of services provided by the CFS staff (including availability) as dissatisfied.

There is high dissatisfaction among the trade on CFS charges and their operations

Inadequate infrastructure, equipment and lack of skilled labour at CFS delays movement of containers from port to CFS

Infrastructure

Inadequate infrastructure at CFS

EXIM has been demanding for better infrastructure facilities at CFSs across container ports. Better equipment (proper equipment for handling drugs, battery operated forklift instead of diesel), adequate number of forklifts and skilled and trained workers are required for the various operations at the CFSs. There have been incidences of delay in movement of containers from port to CFS. These have resulted in trade paying demurrage. The reasons cited have been varied including lack of adequate number of tractor trailers at the authorised CFS. At times, the CFS operators have to hire the local unskilled labour for operations and train them accordingly, for the required skill. Besides, proper stacking of containers with bar coding is not present at all CFSs.

Operations

CFS operations

Inadequate number of CFSs operates on 24x7 basis even as more than 50% of the cargo is Risk Management System (RMS) facilitated. With the increase in RMS facilitated cargo clearance, more number of CFS would need to operate on a 24x7 basis to ensure speedier evacuation. At V.O.C port, only one CFS operated by CONCOR operates round the clock, while at Chennai port only 3 CFSs operate on 24x7 basis. For CFS to operate on a 24x7 basis, a number of other stakeholders also need to work on a 24x7 basis. Customs officials and Participating Government Agencies (PGAs) should also operate on a 24x7 basis to give clearance and generate reports. Moreover, adequate manpower and machinery also needs to be deployed.

Late receipt of DO from the shipping lines or late OOC from Customs officials sometimes result in delayed payment by importers to the CFS. However, CFSs do not accept payment on a 24x7 basis, and importers have to wait for the subsequent day which eventually leads

to delay in release of cargo. Moreover, not all CFS across ports facilitate e-invoicing and e-payments.

Inconsistent charges levied by CFS

Interactions with several stakeholders revealed that importers/CHAs/freight forwarders are not able to exercise their choice in selecting a CFS for delivery of their cargo. This occurs despite the fact that there is a provision in the Bill of Lading Act for the importers to mention their choice of location to deliver their goods, which then becomes binding by way of law for the shipping lines to adhere to it and Public Notices have also been issued by the Customs in this regard. A range of charges including high deposit amount, are being charged from the importers, if they select a particular CFS. For instance, as per the stakeholders, exorbitantly high CFS Nomination Charge of ₹ 12,000 per TEU for CFS bound containers at JNPT, and ₹ 50,000 to 60,000 per TEU for LCL cargo at Chennai port is levied.

Invoice dated - 10/3/2017 (in INR)					
Qty - 21 TEUs					Per container
	Amount	Service Tax Amt	Swatch bharat cess	Total	
Documentation and processing charges	7,350	1,029	36.75	8,452.5	402.5
Energy surcharge	4,200	588	21	4,830	230
Fuel surcharge	13,650	1,911	68.25	1,5697.5	747.5
Ground rent	28,000	3,920	140	32,200	1,533.30
Handling and transportation	193,200	27,048	966	222,180	10,580.00
Housekeeping charges	2,100	294	10.5	2,415	115
Line Destuffing charges				0	-
LOLO				0	-
Survey CLP & EIR	9,450	1,323	47.25	10,867.5	517.5
Facilitation charges				0	-
Seal Cutting charges	525	73.5	2.73	603.96	28.8
Total	258,475	36,186.5	1,292.48	297,246.5	14,154.60

Invoice dated - 8/3/2017		
Qty - 21 TEU		Per container charge (in inr)
Description of charges	Total amount (In INR)	
Terminal handling charge-destination	16,225	7,725.00
Facilitation processing fees	31,500	1,500.00
Cleaning and washing - HAZ	47,250	2,250.00
Off doc charge	3,22,350	15,350.00
Doc fee	5,000	238.1
Seal value	4,200	200
Total charge	5,72,525	27,263.10
Taxes	85,880	4,089.52
Total charge (incl.taxes)	6,58,405	31,352.62

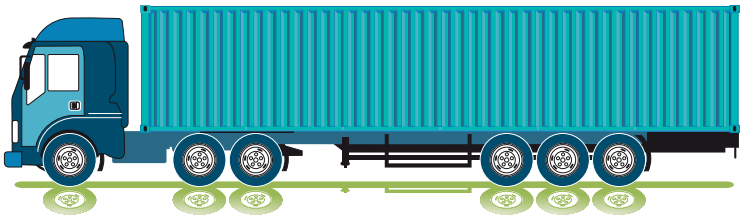
CFS/warehouse charges comprise 18% of average port logistics cost, 2nd highest component after shipping line charges

High and overlapping of charges

Both the shipping line and the nominated CFS sometimes levy Off Dock (shipping line) and Handling and Transportation charges (CFS), leading to overlapping of charges.

Charges per container including the shipping line and CFS can amount to ~ ₹ 40,000 - ₹ 50,000 per container.

- As per D&B's survey, upto 41% of respondents expressed dissatisfaction over the quality of services provided by the CFS/warehouse staff
- CFS/Warehouse charges constitute 18% of the average port logistics cost, the second highest component of the total cost after shipping line charges, as per the findings of the survey



10. Regulatory concerns

Over the years, the Government has implemented several regulations from time to time to meet the changing needs of the Indian port ecosystem stakeholders. However, keeping in mind the changing business environment in which the Indian ports sector operates, some of the existing regulations and policies seem to have become less effective in meeting the Government's objective of promoting maritime trade and reducing logistics cost and time to trade for EXIM community. In this section, we will discuss some of the key regulatory aspects that need urgent intervention to further promote ease of trading through ports.

10.1 Cabotage Law – Issues & concerns

Cabotage law preserves the right of domestic ships to carry cargo on the national coast Under the present provisions, only ships registered in India can provide their services on the coastal shipping route. Technical definition - According to Black's Law Dictionary, Cabotage is *'restriction of the operation of sea, air, or other transport services within or into a particular country to that country's own transport services'*. In most countries, cabotage restrictions are applicable to protect the domestic shipping industry from foreign competition as well as for the purpose of national security.

Cabotage Law – Global Scenario

Absolute cabotage restriction exists in a number of countries, for example

- USA where cabotage restriction is enforced through Merchant Marine Act of 1920 (P. L. 66-261), also known as the "Jones Act"
- China

However, some countries have also relaxed cabotage laws from time to time

- In 2003, **China** eased cabotage restrictions to permit foreign lines to ship empty containers between domestic ports
- In 2003, **South Korea** abolished transhipment fees and relaxed cabotage restrictions to promote it as a northern hub for Asian container traffic. Since the relaxation of cabotage laws, six foreign shipping lines have entered the market. This has led to competition to local feeder operators and has resulted in reducing rates for shippers
- **Australia** (99% of its EXIM trade takes place via shipping) maintains cabotage restrictions under an 'operating permit' system. Under this system, foreign flag carriers can apply for a license to move domestic cargo
- In **Indonesia**, the government relaxed cabotage restrictions for certain transportation activities of foreign flag vessels that are serving Indonesia's oil and gas sectors
- In 2009, **Malaysian** government relaxed its cabotage laws. As a result of this relaxation, Tanjung Pelepas (situated around 50 nautical miles from Singapore) increased its container traffic from 5.6 mn TEUs to 7.5 mn TEUs. As a result, around 94% of the total port traffic is transhipment cargo

Is it benefitting Indian trade and Indian shipping lines?

Due to the current laws, foreign shipping lines cannot move empty containers between different ports on the Indian coast. This results in additional costs borne by the exporters that are spent by either using Indian flag coastal feeders or movement through rail or road. Liner shipping companies are also unable to undertake aggregation of containers from various ports in the country, using their own feeders and have to rely on Indian operators.

Easing the cabotage regulation would be beneficial for India as it would mean a cheaper, smoother and more robust supply chain. It would enable transshipments of loaded exim units and empty units that are being taken elsewhere. Relaxing cabotage regulation would help India to develop coastal shipping and attract more container cargo. Currently, Colombo enjoys the largest share of India's foreign transshipment traffic followed by Singapore and Port Klang. For example in EU, the "Marco Polo Scheme" intends to free Europe's roads of 20 bn tonnekilometres of freight (annual volume) as it has been established that the cost of coastal movement of cargo was about 20% and 40% that of road and rail movement, respectively.

However, relaxing cabotage restriction would affect the viability of Indian shipping companies which are carrying container cargo on one leg and empty containers on return leg. Foreign shipping lines are much more competitive than Indian-registered ships and hence are able to provide their services at competitive rates than the Indian counterparts. Foreign ships get fuel at cheaper prices in overseas ports than Indian ships pay for fuel in Indian waters. A high borrowing cost for Indian companies also makes services of foreign ships in coastal waters much more competitive than Indian-registered ships. Moreover, the average taxation of the Indian shipping company would be higher than its foreign counterpart. From July 1, 2017, a 5% GST (integrated GST or IGST) is levied on Indian shipping companies that carry cargo from or to India. Moreover, a 5% levy would also be applicable to Indian companies that buy or sell vessels. Foreign companies on the other hand can carry out similar activities without any taxation in India.

Easing cabotage laws would benefit India through cheaper and more robust supply chain

Indian scenario

In India, roads and railways account for a higher share of the modal mix for transport accounting for around 85% of the total freight, despite the fact that shipping is the most efficient mode of transport for liquid and bulk cargo. The share of coastal shipping in domestic cargo movement is currently as low as 6-7%, compared to other developed countries in Europe and Asia. Coastal shipping in India is primarily used for transporting petroleum, oil and lubricants (POL), coal and iron ore and pellets. The country has high potential to use coastal shipping for its internal cargo movement given its 7,500 kms long coastline. The National Perspective Plan of Sagarmala envisions the potential to save around ₹ 21,000-27,000 crore through coastal shipping of 230-280 MMTPA of key commodities like coal, cement, fertilisers, iron & steel, food grains and POL by 2025. While RO-RO coastal traffic has the potential of transportation of 1,05,000 cars annually.

However, the Indian flag container vessels operating on the Indian coast are few and have their voyage routes on the west coast terminating till Tuticorin (Draft policy note on cabotage). Only a few of the Indian flag coastal container ships ply on the east coast.

Cabotage relaxation in India

There is no absolute cabotage restriction in India. The policy of cabotage restriction for movement of domestic cargo by foreign flag vessels along the coast of India is governed as per Section 407 of the Merchant Shipping Act, 1958, as amended from time to time. Under the aforementioned Act [Section 407 (2)], a foreign flag vessel can obtain license for coastal trade for a specified period or voyage by DG Shipping (DGS), subject to conditions. The Right of First Refusal (RoFR) is given to the Indian flag which offers competitive rates in the carriage of the said domestic cargo. In case no Indian flag vessel is available or no offer thereof is made, NOC is granted and accordingly license is issued by DGS to the foreign flag vessel. DGS has granted cabotage exemption during FY13, FY14 and FY15 to 728, 738 and 702 ships, respectively. 167 ships have been given cabotage exemption up to June 30, 2015. Besides, Section 407 (3) of the Act empowers the Central Government to relax cabotage restriction in respect of any part of the coastal trade of India, subject to such conditions and restrictions as it deems fit.

In an effort to boost trade, the government has lifted some of the cabotage provisions that prevent foreign-flag ocean carriers from transporting containers between domestic gateway ports. Major public ports on the eastern coast, such as Kolkata, Chennai, Tuticorin and Visakhapatnam, mostly carry out feeder activities that involve sending and receiving cargo through other hub ports in the region. The cabotage is relaxed for existing container handling ports for one year during which the port transships at least 50% of the EXIM/empty containers. The cabotage relaxation will continue if the port transships at least 50% of EXIM and empty containers in a year. For a new port, a gestation period of one year has been provided and the port has to achieve the prescribed transshipment in the second year.

Some of the other measures taken by the Government to enhance freight traffic through coastal shipping are:

- Customs and Excise Duty leviable on bunker fuels for transportation of EXIM, empty and domestic containers between two ports in India have been exempted
- Bringing abatement of service tax at 70% for coastal shipping at par with road and rail
- Simplification of customs procedures
- For creation of infrastructure at ports, a Central Sector Scheme for construction of exclusive berths for coastal vessels providing assistance up to 50% of the total cost of the project subject to maximum of ₹ 250 million is in operation
- Cabotage has been relaxed for Ro-Ro, Hybrid Ro-Ro, Ro-Pax, Pure Car Carriers, Pure Car and Truck Carriers, LNG vessels and Over-Dimensional cargo or Project cargo carriers for 5 years w.e.f. 2nd September, 2015
- The discount on port charges for Ro-Ro ships by major ports has been increased from 40% to 80% for two years w.e.f. 20th September, 2016
- Major ports have been directed to provide priority berthing to coastal ships to reduce waiting time of ships
- Green channel clearance system introduced at major ports for faster evacuation

10.2 Tariff Regulation

The regulatory environment that has evolved over the years within which the major ports operate has not been homogeneous. This has been at the heart of many problems faced by the private terminal operators at the major ports.

The first tariff guidelines issued in 1998 by the Tariff Authority for Major Ports (TAMP) adopted a normative cost plus approach with an assured rate of Return on Equity (RoE) of 20%. Absence of norms related to capital and operating cost made TAMP dependent on data provided by the terminal operators. Further, the guidelines did not specify a normative debt equity ratio. Initially a debt equity ratio of 65:35 was adopted, but in the subsequent orders the ratio was adjusted to 50:50. This increase in equity meant adopting higher tariff by the terminal operator at the expense of the trade.

The next set of guidelines issued in 2005, which superseded the 1998 guidelines, permitted an assured rate of Return on Capital Employed (RoCE) of 16%. The issue of treatment of royalty as a cost item and eventual pass-through to the trade was resolved, except for cases prior to July 29, 2003, subject to a maximum of royalty quoted by the second lowest bidder. However, the improved regime still suffered from major setbacks. Efficiency gains derived by the terminal operators were moped up by 50% in the subsequent tariff review by revising the tariff downwards. The other contentious issues were determination of operating and capital cost on an ad hoc basis, lack of clarity between standard and installed capacity, and computation of income on a depreciating asset base leading to a downward spiral of tariff.

In the next set of guidelines issued in 2008, TAMP fixed an upfront cap for tariffs with an annual indexation of up to 60% of the variation in the Wholesale Price Index (WPI). Gross revenue share paid to the Port Trusts were quoted basis this initial tariff thereby removing the uncertainty faced by bidders in the earlier guidelines with respect to initial tariffs. However, the 2008 guidelines were applicable only for new BOT projects and the existing terminals continued to operate under the 2005 guidelines.

TAMP has jurisdiction only over the major ports and the private operators therein, while around 200 minor ports are within the jurisdiction of the respective State Governments. Kamarajar Port which is incorporated under the Companies Act 1956 is also outside the purview of TAMP. While the minor ports and Kamarajar Port are allowed to fix tariff as determined by market forces, the private terminals at the major ports are made worse-off because the gross revenue share is calculated on the ceiling tariff and not on the actual tariff charged by terminals. Hence, the co-existence of two different tariff regimes has created a non-conducive environment where tariff differentials exist not only between ports which operate in a similar environment, but even amongst terminals within a single landlord port.

Another limiting factor which has serious implications on time and cost is the delays in tariff fixation by TAMP especially in PPP projects which were in the bidding phase. Delays have ranged up to seven months resulting in slowdown of the implementation cycle. There is no mandate to complete the process of tariff fixation within a fixed timeline. Further, TAMP cannot enforce timelines on port trusts for furnishing of the required documents. Another case which proves the regulatory limitation of TAMP is the non-jurisdiction over the shipping lines. There is no mechanism in place to ensure that the lower tariffs set for terminal operators are passed on to the importers/exporters by the shipping lines. The above fallacies related to tariff fixation have led to complex litigations, impaired timely investments in infrastructure and hampered efficient terminal operations.

With the passing of The Major Port Authorities Bill, 2016 in the Parliament, TAMP will be replaced by The Major Ports Adjudicatory Board. The Adjudicatory Board is expected to carry out the following functions:

- All functions envisaged to be carried out by the erstwhile TAMP arising from the earlier tariff guidelines and tariffs orders
- Adjudicating reference on any disputes or difference or claims related to rights and obligations of major ports and PPP concessionaires
- Appraise, review and suggest revival measures for stressed PPP projects
- Look into complaints received from port users against the port services rendered by the major ports or the private operators therein

The Adjudicatory Board will enjoy the same powers as vested in a civil court while trying a suit. This will enable speedy resolutions of disputes. However, the Bill does not mandate PPP operators to refer disputes or claims to the Adjudicatory Board. Another important feature of the Bill is the provision for creation of 'Board of Major Port Authority' for each major port. This Board is empowered to fix reference tariff for the purpose of bidding and the PPP operators are allowed to fix tariff based on market conditions. While the new Bill is regarded as a big step to overcome the issues related to tariff setting that plagued the port sector, the problems of the existing PPP operators would largely remain unresolved as they will continue to operate under the existing tariff guidelines with limited flexibility to fix prices.

Detention and Demurrage

The various infrastructural, operational and connectivity related issues and challenges facing the ports sector have not only adversely impacted the overall performance of the ports, but have also resulted in increased time taken for trading through ports. Further, these factors have also culminated into increased logistics costs for the trade. What is worrisome is the fact that, as revealed by our survey, as much as 22% of the port logistics cost is contributed by detention and demurrages charges. This points towards the unpredictability or the lack of visibility on cost to trade as these are "adhoc charges" levied on exporters/importers. Over 50% respondents in 10 out of 14 ports rated detention charges as dissatisfied; Over 50% respondents in 8 out of 14 ports rated demurrage charges as dissatisfied.

Impact of the challenges on dwell time

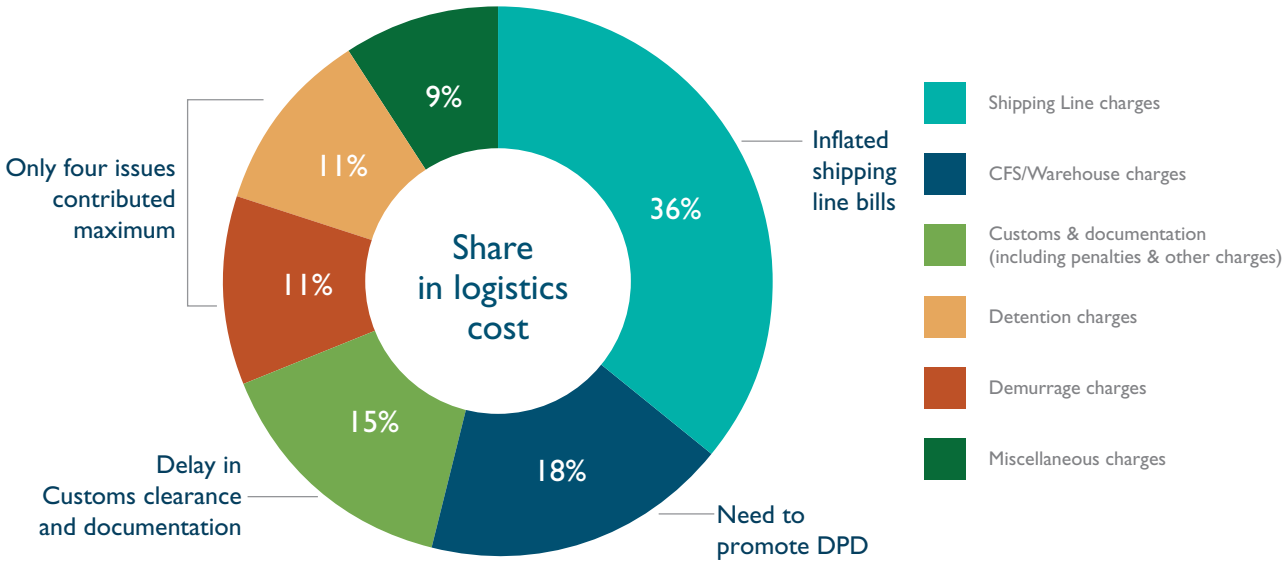
As revealed by the survey results, just four issues, namely port congestion, delays in customs clearance, delays in regulatory clearance, and documentation account for around 80% of total issues causing detention and demurrage.

Impact of Challenges: Dwell Time

Impact of the challenges on logistics cost

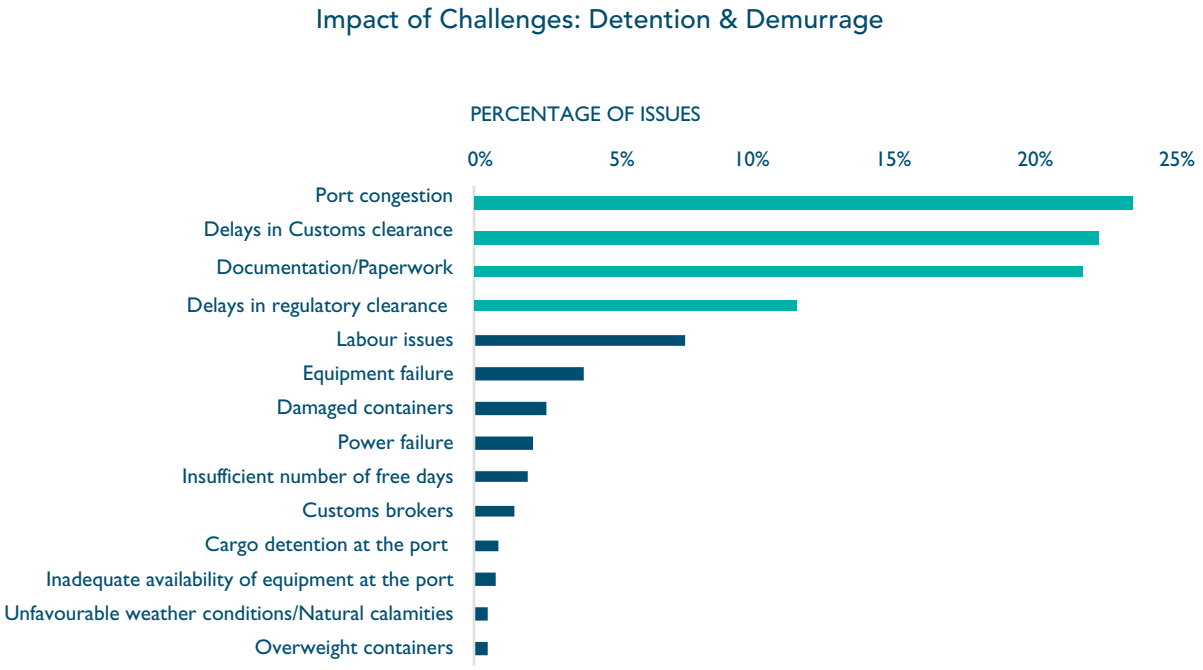
Charges levied by the shipping lines remains a major bone of contention among the EXIM community, and this is very well corroborated by our survey findings which reveal that shipping line charges account for the single largest share of 36% in the total port logistics cost in India.

Impact of Challenges: Logistics Cost



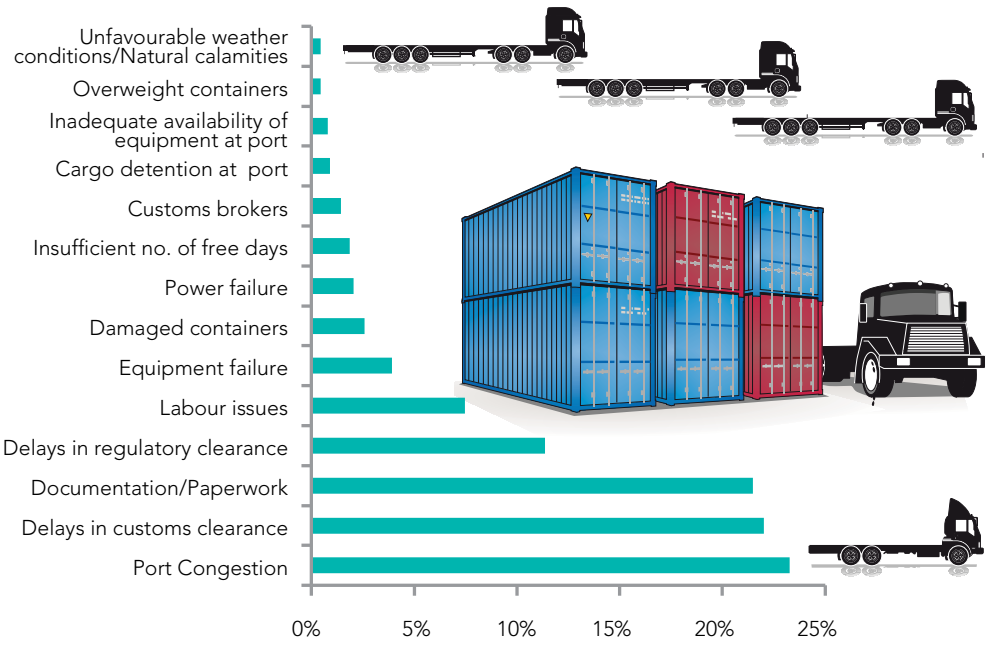
Detention and demurrage

Detention and demurrage translates into cost implications for the trade. The survey results reveal that 88% of the respondents face detention and demurrage up to 20% of the times they trade in a year. Further, over half of the respondents cited that they face 1-3 days of detention (52%) and demurrage (51%). Over one-fourth of respondents cited that they face 4-6 days of detention (27%) and demurrage (26%).

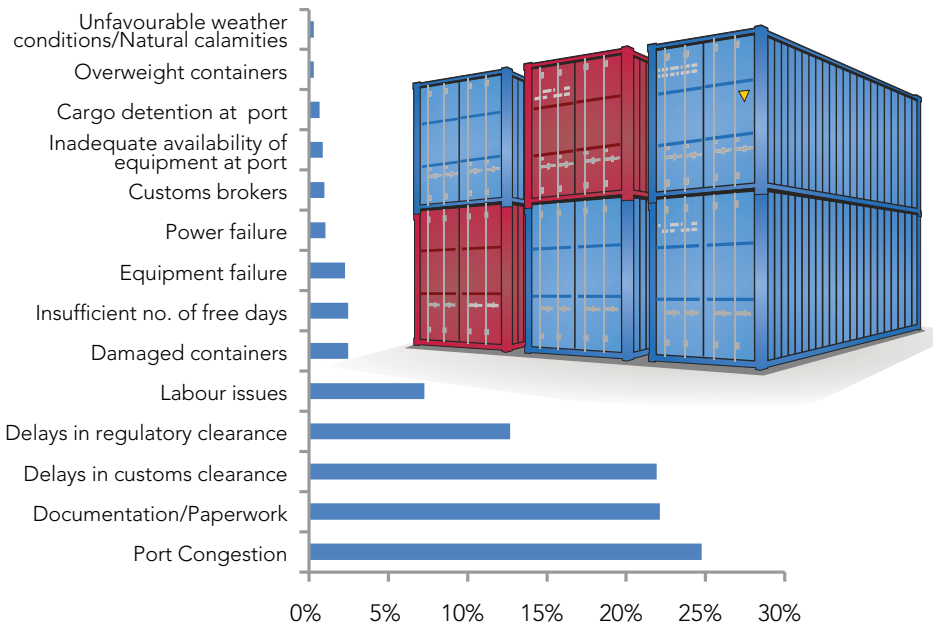


Port congestion, Delays in customs clearance, Delays in regulatory clearance and Documentation & paperwork have emerged as the leading causes of detention and demurrage. In fact, these four reasons constitute around 80% of the overall reasons for detention and demurrage charges.

Causes for detention



Causes for demurrage



Demurrage - Frequency

Frequency/Port	Chennai	Cochin	Haldia Dock	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Upto 20%	80	80	92	89	90	91	91	96	86	80	90	91	84	92
21-40%	9	18	8	9	10	9	4	4	10	17	10	9	13	6
41-60%	7	2		2			2		5	2			4	2
61-80%	4													
81-100%							2			2				

Demurrage - Length

Length/ Port	Chennai	Cochin	Haldia Dock	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Upto 1 day	9	4		4	31	5	21	13	17	3	10	9	11	6
1-3 days	38	49	61	58	45	53	57	57	54	43	43	48	39	57
4-6 days	29	35	31	27	19	35	15	21	22	28	33	32	25	20
7-9 days	18	4	6	2	2	7	4	4	5	15	13	11	21	2
Above 9 days	7	8	2	9	2		2	4	2	10	3		4	4

Detention - Frequency

Frequency/Port	Chennai	Cochin	Haldia Dock	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Upto 20%	77	82	92	89	88	95	91	91	81	82	95	91	82	92
21-40%	14	16	8	7	12	5	6	9	14	11	3	9	14	6
41-60%	7	2		2					2	3	3		4	2
61-80%	2			2						2				
81-100%							2		2	2				

Detention - Length

Length/ Port	Chennai	Cochin	Haldia Dock	JNPT	Kamarajar	Kandla	Kolkata	Mormugao	Mumbai	Mundra	New Mangalore	Paradip	V.O.C	Visakhapatnam
Upto 1 day	11	6		4	31	4	19	11	17	7	8	7	9	6
1-3 days	52	46	57	49	50	58	55	60	56	43	43	51	48	69
4-6 days	20	38	29	31	17	29	19	21	17	28	35	29	38	20
7-9 days	9	8	12	7		4	4	2	5	8	13	9	5	2
Above 9 days	7	2	2	9	2	4	2	6	5	15	3	4		4

Conclusion

The Dun & Bradstreet survey findings once again reiterate the burning issues facing the exporters and importers and the areas that need urgent attention to facilitate ease of transacting business, in an efficient and cost competitive manner. The physical and digital infrastructure is in dire need of an overhaul. It is equally pertinent to streamline the existing policies, regulations and operations & procedures, to bring about transparency and effective contractual arrangements, in order to facilitate greater and competitive trade through India's major ports.

Thus, in order to realise the full potential of India's maritime sector, there is an urgent need to not only invest in capacity building in the infrastructure sector and improve connectivity, but also implement more initiatives towards trade facilitation and regulatory reforms, so as to reduce logistics cost and time for the movement of EXIM cargo and improve ease of doing business.

Chapter 5
BENCHMARKING WITH SELECTED INTERNATIONAL PORTS

Introduction

India still has a long way to go to make its mark on the global map as far as global trade is concerned. It ranks 20th and 14th in world exports and imports, respectively. India's trade stood at US$ 623 bn during FY16 and has a share of around 2% in world trade. Nevertheless, it is notable that over the last decade, India's seaborne trade has grown at twice the global growth rate of 3.3%. Further, between FY05 and FY16, the cargo traffic at Indian ports has doubled to more than 1 bn tonne from 521 mn tonnes. JNPT ranks (34) amongst the world's top 50 container ports, far behind China, Singapore, Korea and U.A.E., amongst others (as per World Shipping Council).

In 2016, India ranked 20th in world exports and 14th in world imports

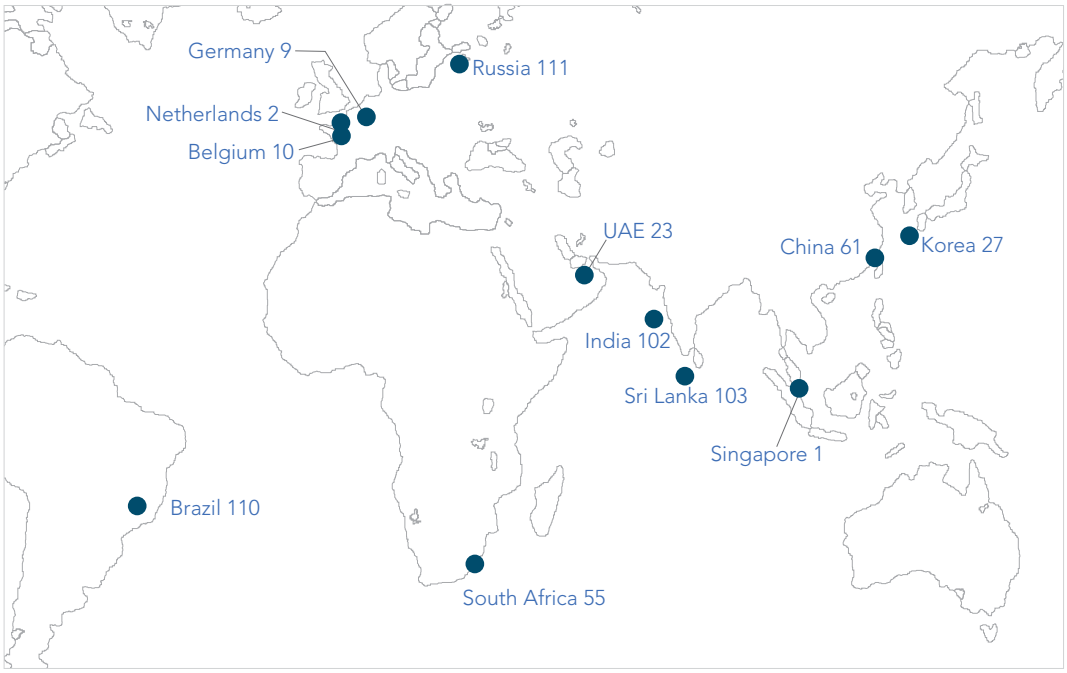
In this section on Benchmarking, a comparison has been made between India's position and performance across various parameters with 11 countries, namely, Belgium, Brazil, China, Germany, Korea, Netherlands, Russia, Singapore, South Africa, Sri Lanka and U.A.E. For the purpose of comparison and analysis, the following publications have been referred to: Doing Business Reports, Enabling Trade Reports, Logistics Performance Reports and Global Competitiveness Reports.

The key parameters studied in detail for benchmarking India with its global counterparts include Infrastructure – Physical and Digital; Documentation; Transportation; Labour; Customs and Regulations.

Physical infrastructure: Patchy development pulls down overall ranking

Among the 12 ports under consideration, India had the second lowest rank of 60 (out of 136 countries), faring better than Sri Lanka (68), in the Infrastructure sub-index in the ***Enabling Trade Index 2016 Report***. However, it lags far behind Singapore (2), Netherlands (3), and U.A.E. (6).

Enabling Trade Index: Overall Ranking

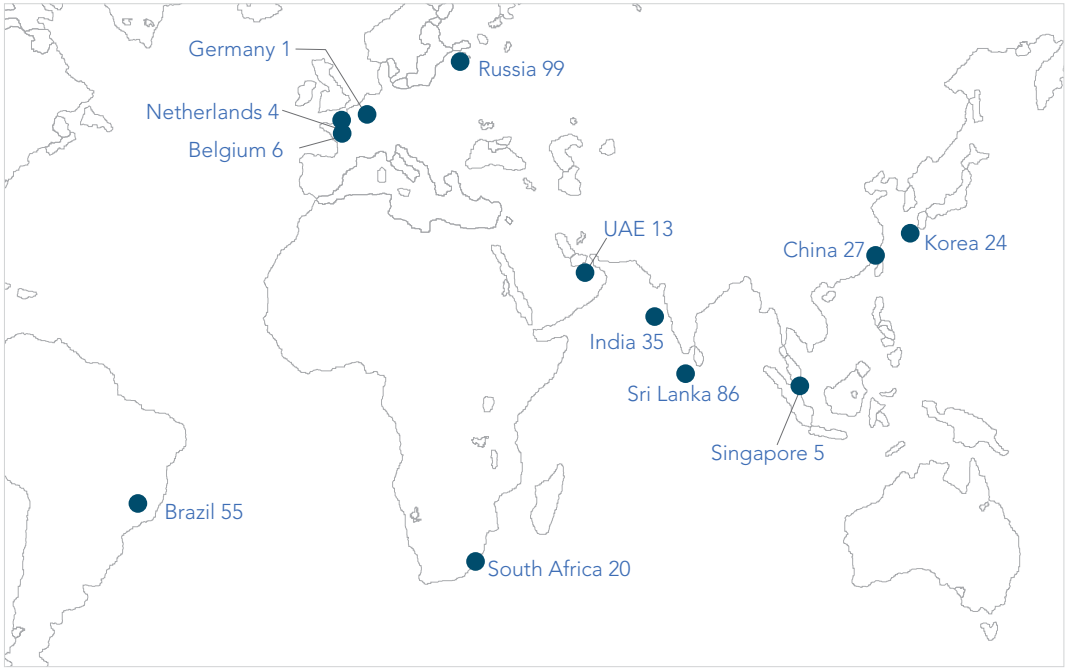


Source: The Global Enabling Trade Report 2016

Large advancements have been made in terms of Availability & Quality of Transport Infrastructure (from 31 in 2014 to 28 in 2016). Within this parameter, India fares better on Quality of railroad infrastructure (23) and Liner Shipping Connectivity Index (33), although it fares poorly on Road Quality Index (74). A comparison of Quality of port infrastructure reveals that India ranks at 47, not far compared to China (42), and way ahead than Sri Lanka (59).

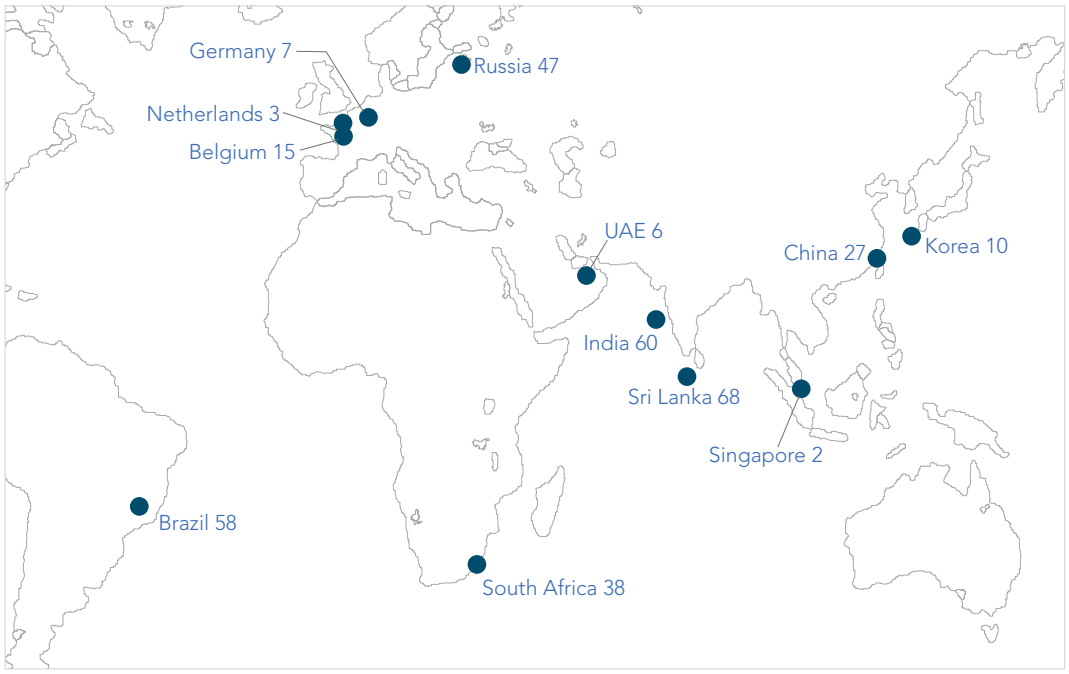
As per the ***Logistics Performance Index 2016 Report***, between 2007 and 2016, India's ranking on Infrastructure (quality of trade and transport infrastructure) has improved considerably from 42 to 36 (out of 160). It however, lags far behind China (23).

Logistic Performance Index: Overall Ranking



Source: Connecting to Compete: Trade Logistics in the Global Economy

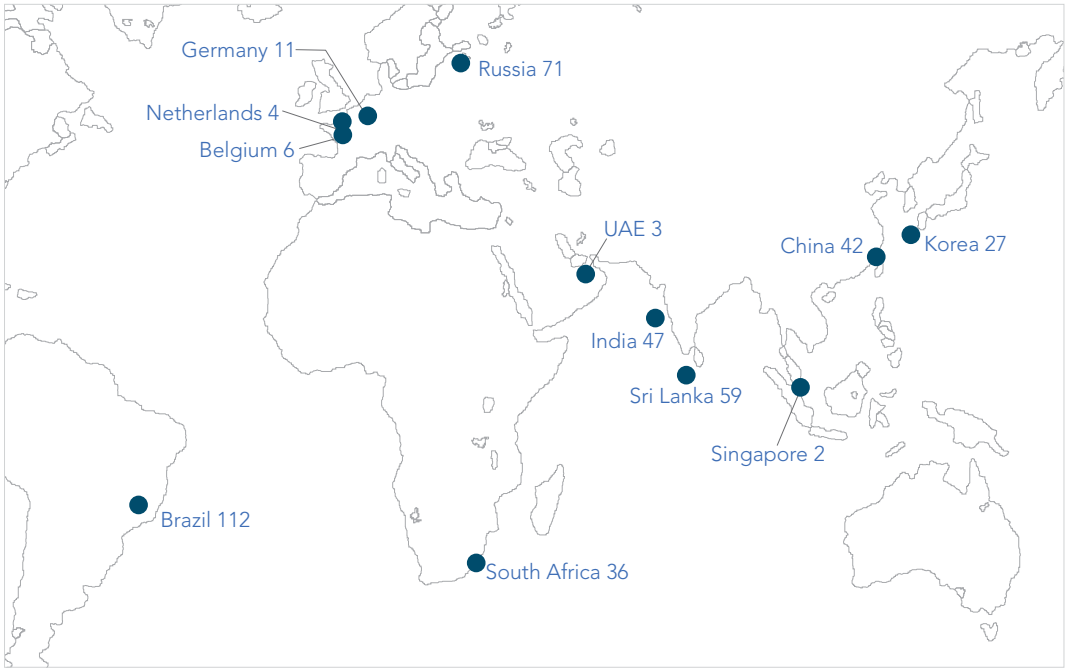
Enabling Trade Index: Infrastructure - Overall Rankings



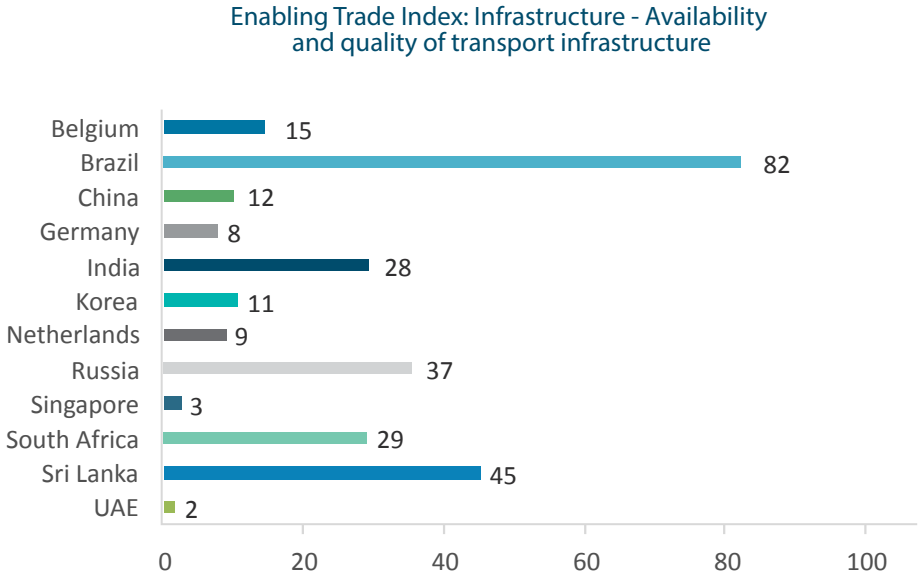
Source: The Global Enabling Trade Report 2016

Enabling Trade Index: Infrastructure - Quality of Port Infrastructure

On Quality of Port Infrastructure parameter, India ranks 47 as compared to China's rank of 42



Source: The Global Enabling Trade Report 2016



Source: The Global Enabling Trade Report 2016

Digital Infrastructure – A lot of ground to cover

As per the ***Enabling Trade Index 2016 Report***, in terms of Availability & use of ICTs, India's ranking is a poor 101. Its neighbouring peers like Sri Lanka (87) and China (64) fare much better. Within this parameter, in terms of Internet users as a % of population, India's ranking (100) is the lowest amongst the 12 countries under consideration. India's ranking is also the lowest for fixed and mobile broadband subscriptions, as also ICT use for business to business (biz-to-biz) transactions.

Digital Infrastructure: Rankings

Parameters	Belgium	Brazil	China	Germany	India	Korea	Netherlands	Russia	Singapore	South Africa	Sri Lanka	United Arab Emirates
Availability and use of ICTs	26	45	64	17	101	6	3	37	13	61	87	19
Internet users	20	63	76	19	100	13	7	38	26	74	96	11
Fixed broadband Internet subscriptions	11	61	48	9	104	5	3	46	32	85	94	59
Mobile broadband subscriptions	48	22	62	35	125	12	40	39	2	56	113	20
ICT use for biz-to-biz transactions	19	62	45	14	83	39	5	68	8	28	56	7
Internet use for biz-to-consumer transactions	32	41	36	10	65	5	4	33	22	51	57	17

Source: The Global Enabling Trade Report 2016

A ranking of 65 for India for the parameter Internet use for biz-to-consumer transactions and 83 for ICT use for biz-to-biz transactions reflect the inadequate availability/ functionality of digital platforms for the various port stakeholders to transact business.

Ease of doing business through rationalisation of documentation

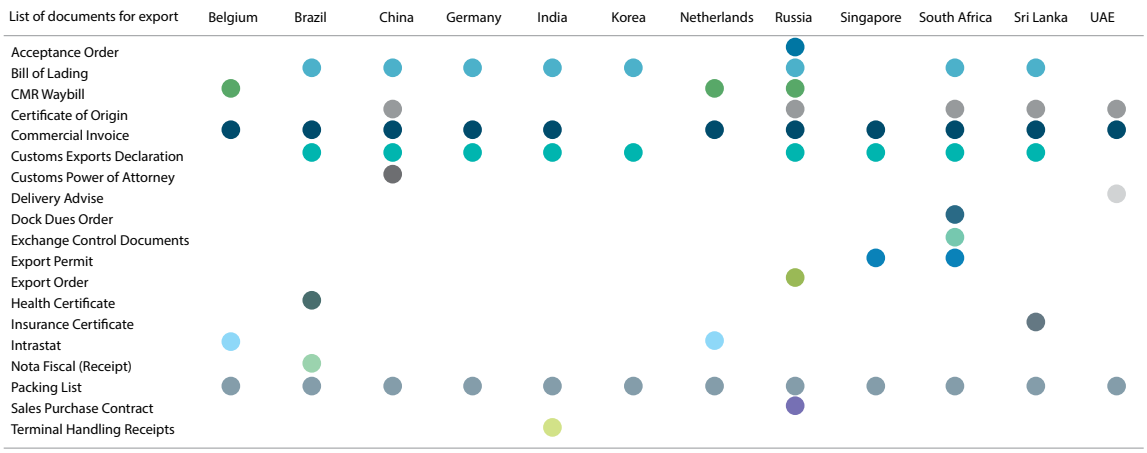
Number of documents required for exports and imports in India is less than China and Russia but more than Singapore and Korea

The impact of India's trade facilitation measures undertaken over the years is reflected in the rationalisation in the number of documents as also the time taken for imports and exports. For instance, as per ***Doing Business 2006***, 15 documents were required for imports and 10 for exports. This has now been reduced to 7 and 5, respectively, as per ***Doing Business 2017***.

A comparison of number of documents required for exports and imports shows that while in India the number of documents required are lesser compared to Russia, China, Brazil, South Africa and Sri Lanka, it is still higher than in Belgium, Germany, Korea, Netherlands, Singapore and UAE.

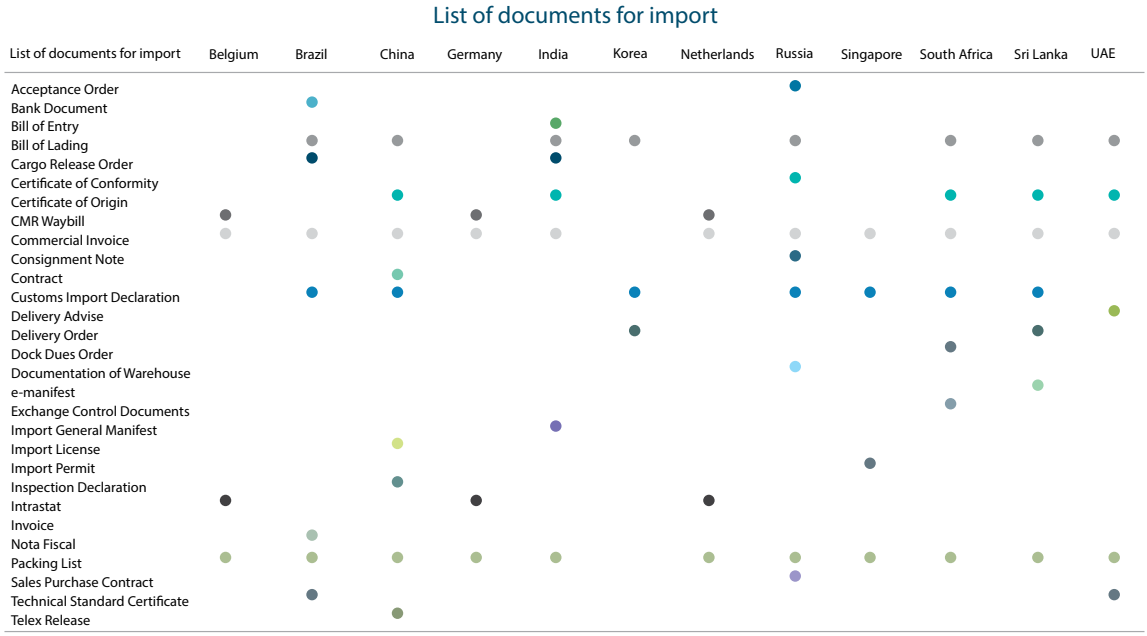
When compared with Singapore, amongst the top ports in the world, where only 4 documents are required for exports and imports, in the case of India, not only is the number higher, even the type of documents required are different.

List of documents for export



Source: Doing Business 2017

List of documents for import



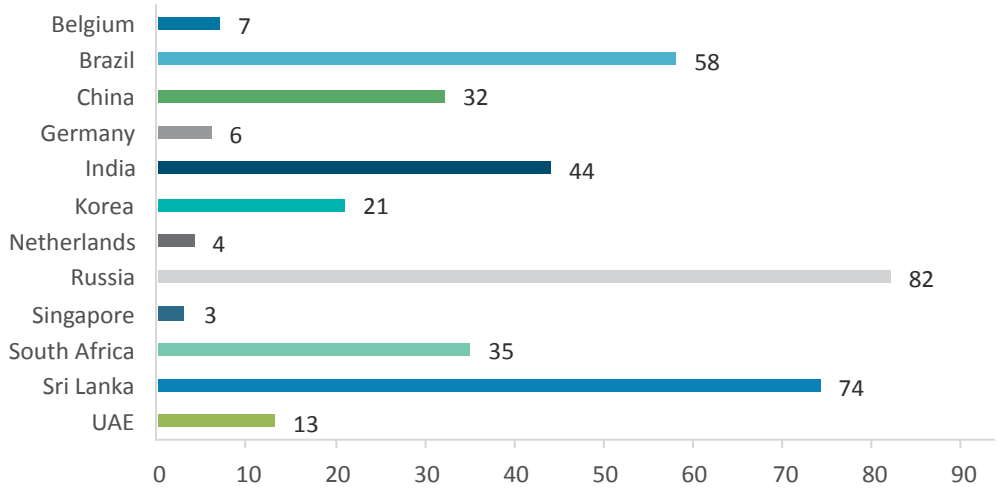
Source: Doing Business 2017

Transportation services: Significant improvement in availability & quality of transport services

Over the last few years, India has witnessed considerable advancement in the availability and quality of transport services. As per the ***Enabling Trade Report 2016***, India ranks at 44, an improvement over rank of 59 as per ***Enabling Trade Report 2010***. Of the ports under consideration, India fares better than Russia (82), Sri Lanka (74) and Brazil (58). China, although ahead of India on this parameter, has in fact witnessed a steep deceleration in its ranking, from 18 to 32.

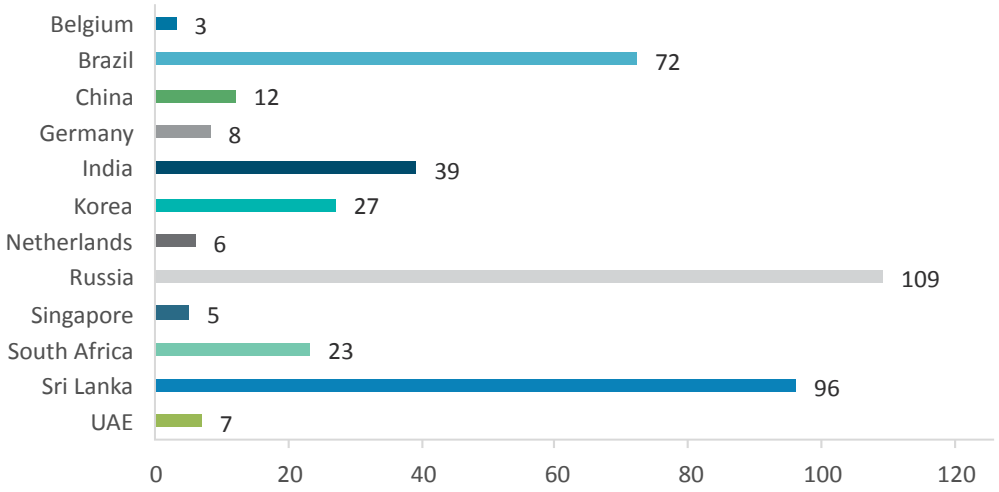
Within the parameter of Availability and quality of transport services, India fares poorly when compared to 8 out of the remaining 11 ports under consideration on Ease and affordability of shipment (39) and Logistics competence (32), Tracking and tracing ability (33) and Timeliness of shipments in reaching destination (42). It is nevertheless noteworthy that India's ranking on the ability to track and trace international consignments was much worse at 50 as per ***Enabling Trade Report 2010***.

Enabling Trade Index: Transportation - Availability and quality of transport services



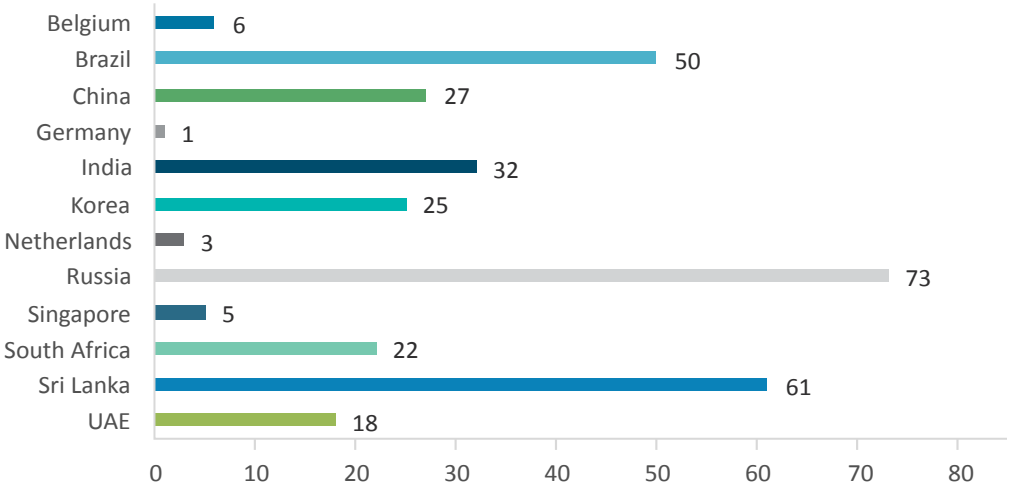
Source: The Global Enabling Trade Report 2016

Enabling Trade Index: Transportation - Ease and affordability of shipment



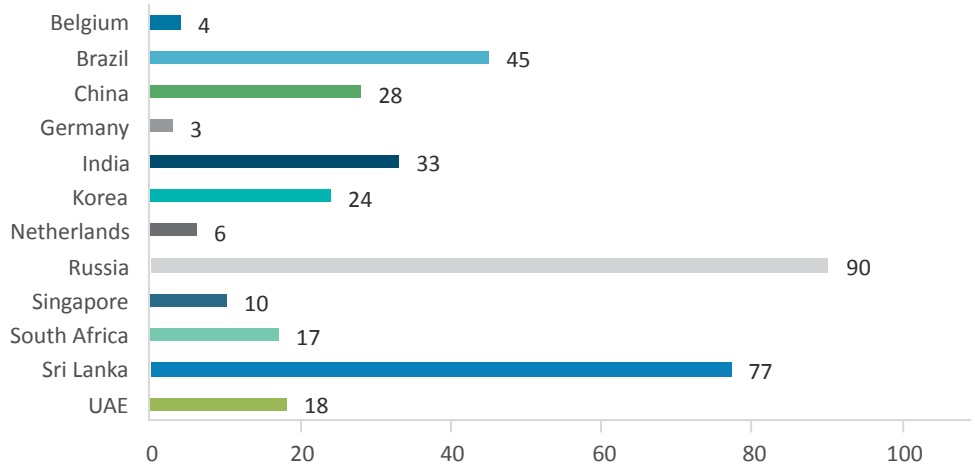
Source: The Global Enabling Trade Report 2016

Enabling Trade Index: Transportation - Logistics competence



Source: The Global Enabling Trade Report 2016

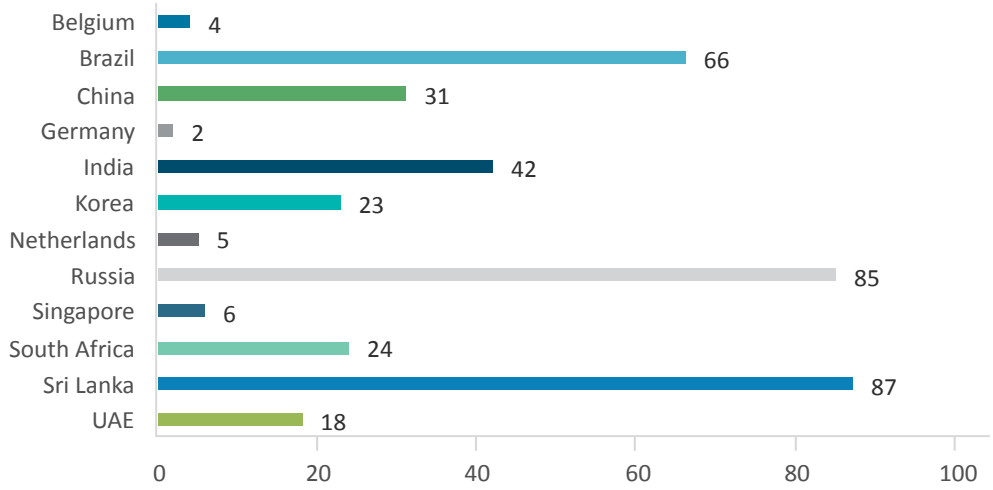
Enabling Trade Index: Tracking and tracing ability



Source: The Global Enabling Trade Report 2016

India's rank on the ability to track & trace international consignments has improved to 33 in 2016 from 50 in 2010

Enabling Trade Index: Timeliness of shipments to destination



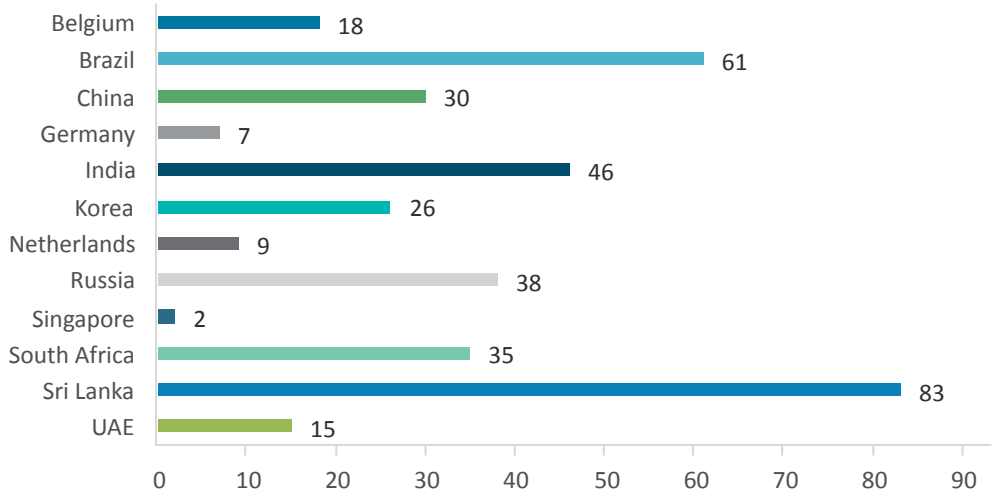
Source: The Global Enabling Trade Report 2016

Rigid regulations & poor employee-employer relations adversely impact labour market efficiency

The *Global Competitiveness Index Report* among others, measures Efficiency Enhancers of countries, which also includes labour market efficiency and higher education and training. India's ranking on Efficiency Enhancers has decelerated from 38 ***(Global Competitiveness Report 2010-11)*** to 46 out of 138 countries ***(Global Competitiveness Report 2016-17)***. In terms of its labour market efficiency, India lags behind in comparison to 8 of the remaining 11 countries under consideration. Poor work ethic in national labour force and restrictive labour regulations feature amongst the most problematic factors for doing business in India.

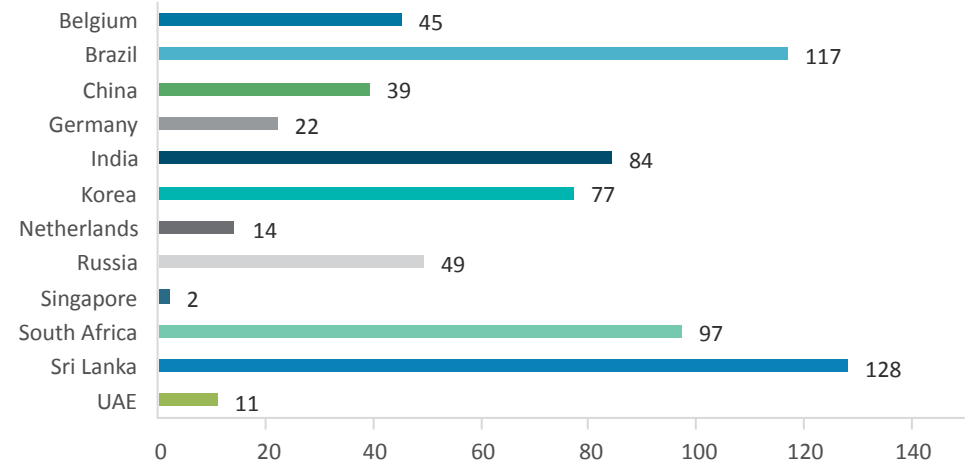
Although India's ranking on labour market efficiency has improved from 92 ***(Global Competitiveness Report 2010-11)*** to 84 ***(Global Competitiveness Report 2016-17)***, it is far behind when compared to China (39), UAE (11), Russia (49), etc. A deeper analysis of labour market efficiency reveals that over this period, India's ranking has worsened for most of the sub-parameters, particularly for Flexibility of wage determination and cooperation in labour-employer relations. These statistics also point towards the perennial labour issues facing the ports sector in India, which is also plagued by strikes/labour unrest. Also, strong labour unionisms at India's ports have resulted in rising cost of labour over the years.

Global Competitiveness of India's labour market:
Efficiency enhancers overall rankings



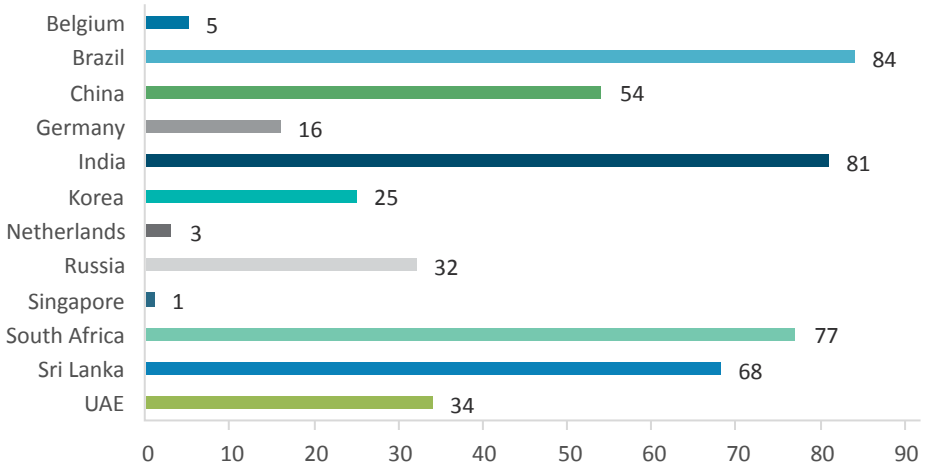
Source: Global Competitiveness Report 2016-17

Efficiency Enhancers Rankings : Labour market efficiency



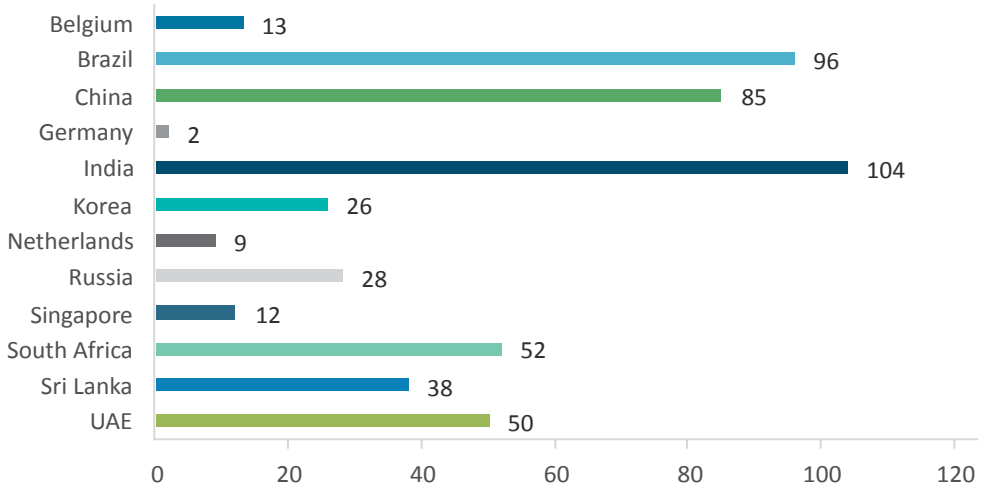
Source: Global Competitiveness Report 2016-17

Efficiency Enhancers Rankings: Higher education and training



Source: Global Competitiveness Report 2016-17

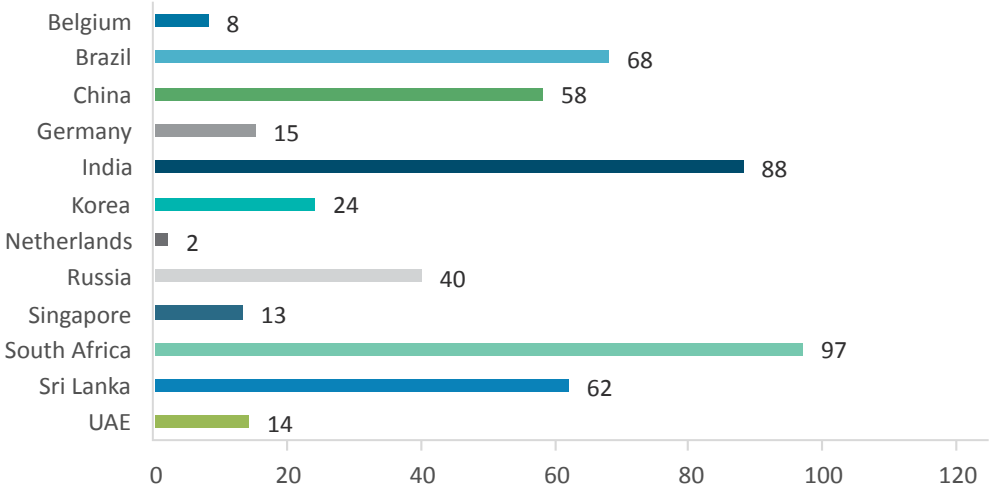
Efficiency Enhancers Rankings: Skills of the current workforce



Source: Global Competitiveness Report 2016-17

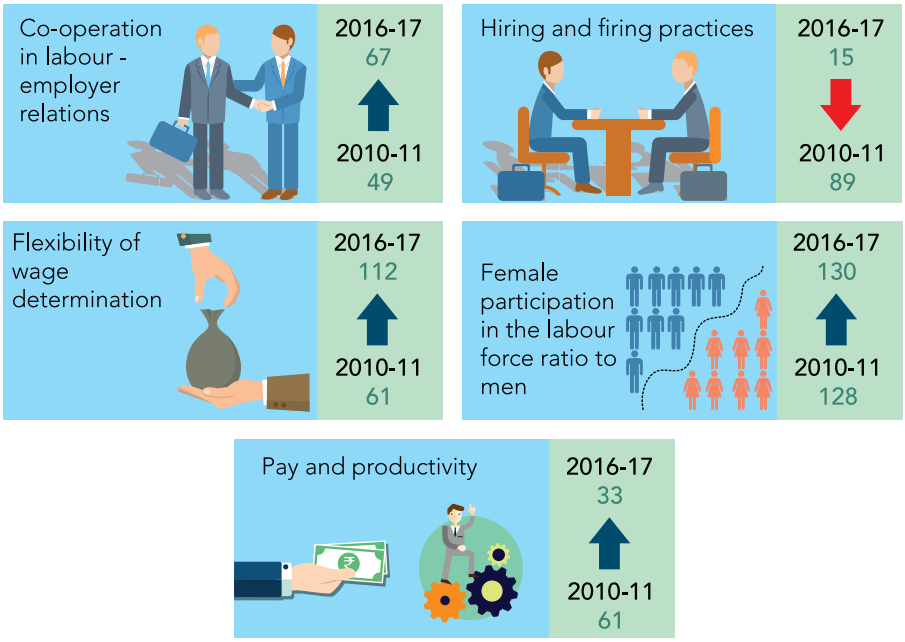
In labour market efficiency, India lags behind 8 of the remaining 11 countries considered

Efficiency Enhancers Rankings : Skills of the future workforce



Source: Global Competitiveness Report 2016-17

India's Labour Market Efficiency



Source: Global Competitiveness Index Report 2016-17 and 2010-11

Customs and Regulatory Clearance Process

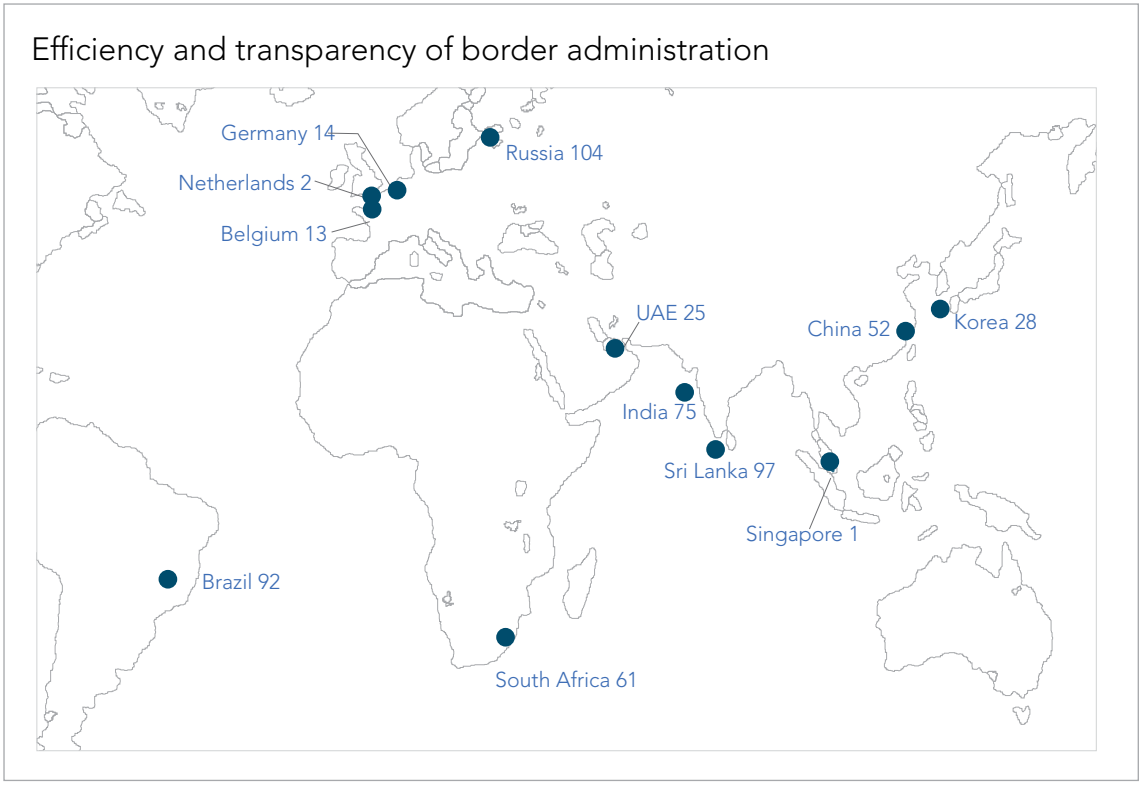
From the 12 countries considered for comparison, India is ranked 102 (out of 136) in the World Economic Forum's ***Enabling Trade Index 2016***, although India fared almost similar to Sri Lanka (103) and much better than Brazil (110) and Russia (111). It lagged far behind Netherlands (2), Germany (9) and Singapore (1). China also performed better than India with a ranking of 62. India's ETI rank has improved by 4 points from 2014 to 2016.

The Global Enabling Trade Index is constructed based on 7 Pillars (or Parameters), which are further divided into sub-parameters. The Pillar 3 of the index deals with "Efficiency and transparency of border administration" rankings.

Pillar 3 : Efficiency and transparency of border administration (13 indicators)

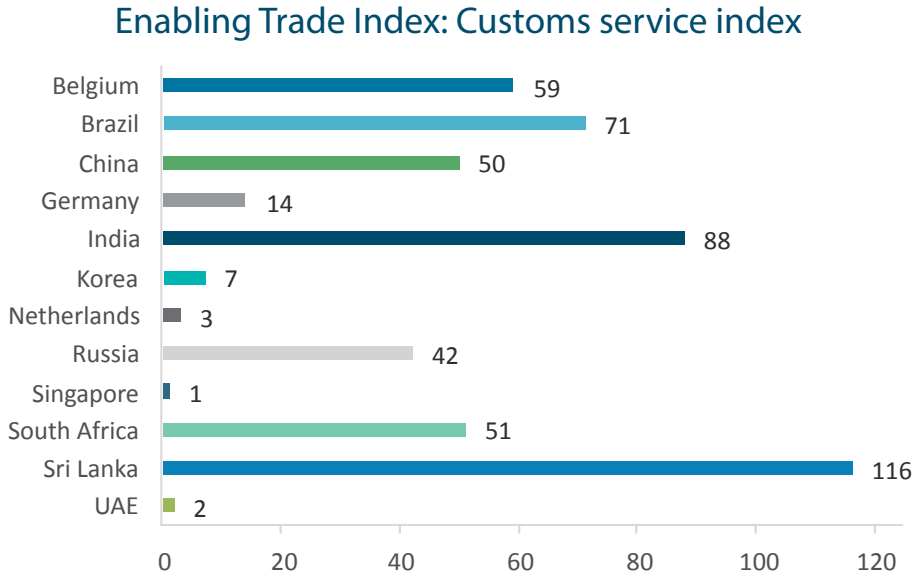
1. Customs Services Index	8. Time to export: Border Compliance
2. Efficiency of the clearance process	9. Cost to export: Documentary Compliance
3. Time to import: documentary compliance	10. Cost to export: Border Compliance
4. Time to import: border compliance	11. Irregular payments in exports and imports
5. Cost to import: Documentary Compliance	12. Time predictability of import procedures
6. Cost to import: Border Compliance	**13. Customs transparency index**
7. Time to export: Documentary Compliance	

Among the 12 countries considered, in Pillar 3: 'Efficiency and transparency of border administration' rankings, India ranked 75 (out of 136) in the ETI 2016 Rankings. India fared much better than Sri Lanka (97). India's Pillar 3 ranking has improved significantly to 75 from 83 in 2014. India still lags behind Singapore (1), Netherlands (2), China (52) and Belgium (13).



India ranked 88 (out of 136) in the Customs Services Index, which is far better than Sri Lanka (116). However, India lags far behind countries like Singapore (1), Netherlands (3), and Germany (14) and even behind neighbour China (50) amongst the countries considered. The Customs Services Index is an index of extent of quality and comprehensiveness of services provided by customs authorities and related agencies. This index also assesses the performance of regulatory agencies other than Customs.

In Efficiency and transparency of border administration, India's ranking improved to 75 in 2016 from 83 in 2014

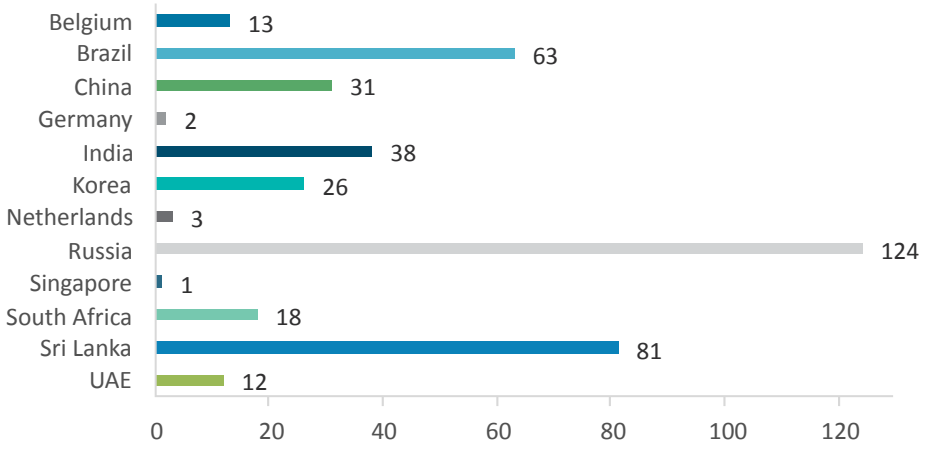


Source: The Global Enabling Trade Report 2016

In the sub-parameter Efficiency of clearance process, India ranked 38 (out of 136), significantly higher than Sri Lanka (81); China ranked higher than India (31). Amongst the countries considered, India ranked far behind Singapore (1), Germany (2) and Belgium (13). The efficiency of clearance process indicates the effectiveness and efficiency of the clearance process by customs and other border control agencies in the eight major trading partners of each country.

India ranked 66 in the Customs Transparency Index, which is far better than Sri Lanka (86) while China ranked 40. Countries like Belgium, Singapore, Germany and Netherlands ranked 1 on this parameter. The customs transparency index assesses the transparency of procedures and regulations related to customs clearance.

Enabling Trade Index: Efficiency of the clearance process



Source: The Global Enabling Trade Report 2016

Improving competitiveness of India's exports and imports

Improvement seen in time to export and import

The impact of India's trade facilitation measures undertaken over the years is reflected in the decline in time taken to trade and the cost of doing trade.

The time taken for export-import has also fallen drastically over the years. As per Doing Business 2006, time for imports and exports stood at 43 days and 36 days, respectively. Compare this with the present situation, when it takes much lesser time to import (14 days, i.e. Documentary and Border compliance) and export (6 days, i.e. Documentary and Border compliance).

When compared with the other ports under consideration, India has the highest time taken for imports (344 hours), followed by Brazil (183 hours). In Singapore and UAE, time for imports is just 38 hours and 66 hours, respectively. In the case of time to export, while India (144 hours) fares better than South Africa (168 hours), time for exports is a mere 14 hours for countries like Singapore and Korea.

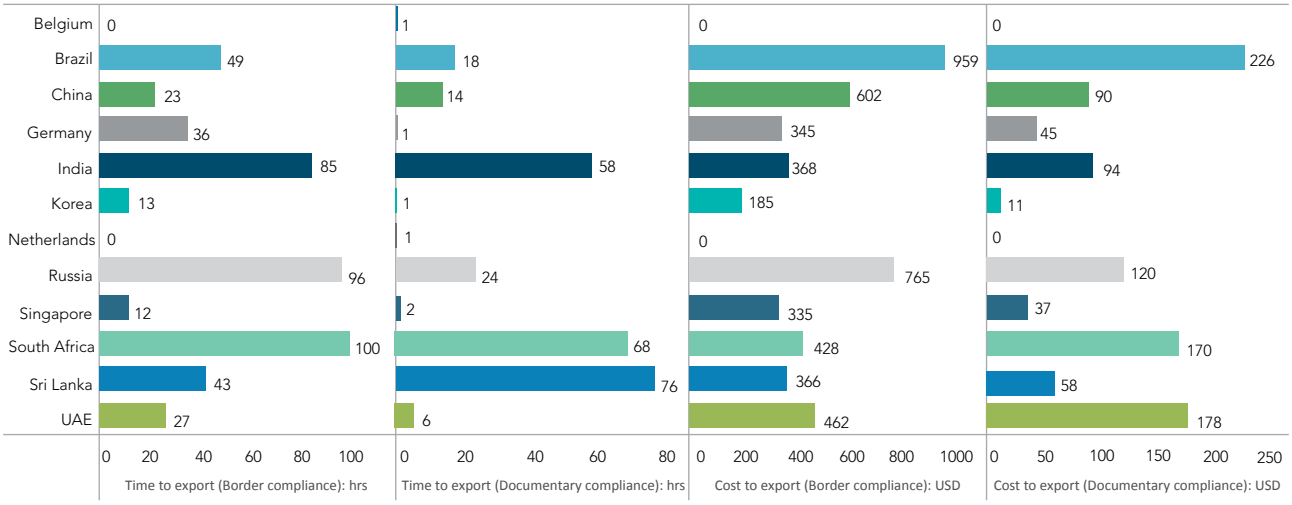
Cost of exports and imports rationalised

As per World Banks' Ease of Doing Business, India's cost to export at US$ 505 in 2016 fares better than China (US$ 870)

India's improved trade competitiveness is mirrored in the significant decrease in cost to export and import. For instance, from US$ 1,055 ***(Doing Business 2011)*** the cost to export has fallen to US$ 505 ***(Doing Business 2017)***. Similarly, the cost to import has come down from US$ 1,025 to US$ 709.

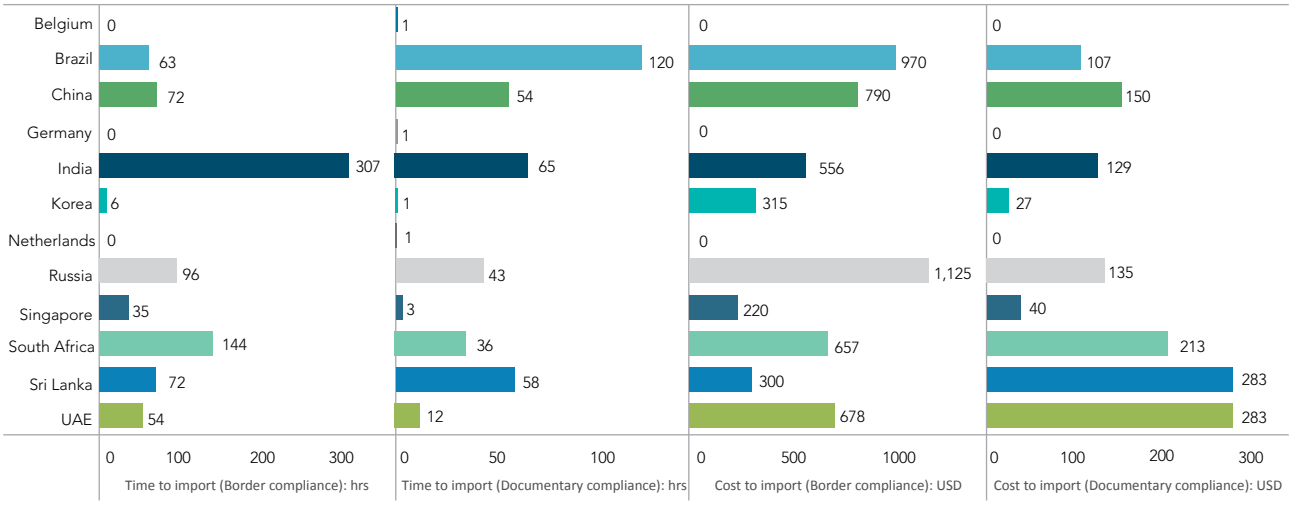
It is also encouraging to note that India's cost to export compares reasonably well with other leading countries such as Singapore (US$ 372), Germany (US$ 390) and Sri Lanka (US$ 424), and is in fact better than China (US$ 607). A comparison of cost to import also shows India's better position as compared to UAE (US$ 961), China (US$ 948) and South Africa (US$ 870).

Cost and time for exports



Source: Doing Business 2017

Cost and time for imports



Source: Doing Business 2017


BIGLIFT

Chapter 6 EXPERT SPEAK

Dr. Jayanta Roy Ph.D
Trade and Development Economist
University of California at Berkeley

About the Author

Dr. Jayanta Roy is an internationally respected trade economist with close to 40 years of post-PhD development experience worldwide, having worked as a Regional Lead Economist in the World Bank and Economic Adviser in the Commerce Ministry in India. He specialises in the area of trade policy, including WTO policies, regional and bilateral trade agreements, special economic zones, trade and transport facilitation and industrial policy.

As Economic Adviser, he was a part of the team that brought in economic reforms in 1991 that opened up the Indian economy. Dr. Roy also served as the Principal Adviser on Trade and Globalisation in the Confederation of Indian Industry. He has taught at the World Bank Institute, Cornell University, the University of California at Santa Cruz, the University of Warwick, UK and the Indian Institute of Management at Calcutta. He is a regular columnist for Business Standard. Dr Roy is now Senior Economic Adviser to Deloitte. Dr. Roy holds a PhD in economics from the University of California at Berkeley.

Getting Connected: Trade Policy Focusing on Global Supply Chains and the Path to Inclusive, Sustainable Growth for India

Introduction

Trade economists traditionally have focused on issues that are central to trade negotiations for greater market access. Given that historically trade related tariffs were high, and therefore constituted a significant barrier that was easily identifiable and measured, trade policy and the primary discussion around trade negotiations largely revolved around such barriers.

However, with the development of fragmented production networks and the rapid evolution of a global consumption and production system managed by multi-nationals, trade barriers which directly impact this global production and consumption supply chain are rapidly growing in importance. In fact, while tariffs remain high in certain cases, they are no longer the primary barriers to trade. The critical challenges are related to non-tariff barriers, both at the border and behind the border, and issues related to trade facilitation, i.e. the cost and efficiency of logistics due to both poor regulation and/or poor infrastructure. Unfortunately, a significant number of developing countries are yet to recognise the importance of these barriers, particularly: reducing trade transaction costs, streamlining regulations, promoting trade and investment in professional services, and strategic regional integration to link its manufacturing to the vast and rapidly expanding regional and global supply chains. This is the global trade landscape that has evolved over the past thirty years. This calls for countries to adopt the next generation trade reforms.

Next Generation Trade Reforms

International trade has grown immensely over the past 30 years, growing on average twice as fast as global output since 1980 (WTO, 2013). While there are many factors that have and will continue to shape the world trading system –such as greater international cooperation, demography, socio-economic factors, deposition of natural resources and political institutions–technology has been a key driver for the rapid evolution of international trade over the past three decades. Advances in production technology, IT and telecommunications and transport logistics have incentivised businesses to delocalise their production networks; a phenomenon that has grown tremendously since the 1980's (UNCTAD, 2011). As Hoekman (2013) writes:

* An earlier version of this article appeared as Pune International Centre (PIC) Policy Brief #2

> Much of the growth has been in intermediate products and services that move from country to country in a company's international supply chain. Value is added to a product in each of the countries that are part of the chain. By locating activities and tasks in different countries according to their comparative advantages, the total cost of production can be reduced.

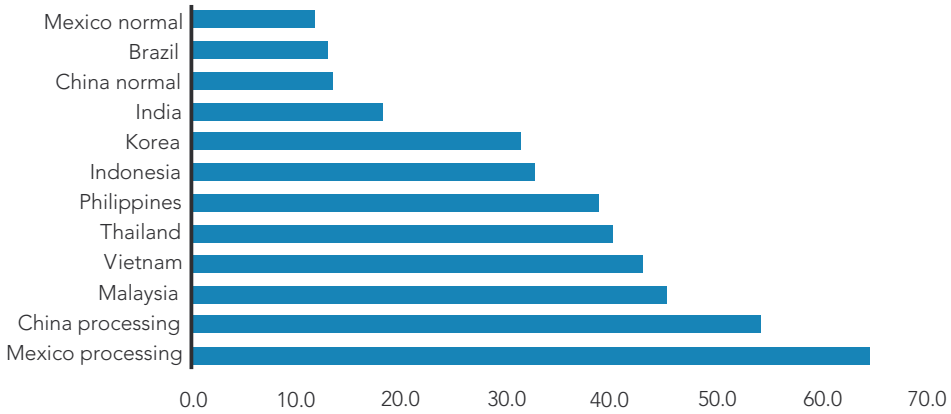
As a result, worldwide trade has become increasingly fragmented with different phases of production increasingly taking place in many different countries, giving rise to increasingly complex Global Supply Chains (GSCs). GSCs can be thought of as a system of value-added sources and destinations within a globally integrated production network. Along this global production system, producers purchase inputs and then add value, which is included in the cost of the next stage of production (Koopman et al, 2010).

Export oriented economies that prioritise a new set of next generation trade reforms to achieve supply chain integration are much more likely to enjoy periods of sustainable and inclusive growth, while those who do not will be left behind. In order to compete in this new global trading landscape, policymakers must focus on three key next generation trade reform areas: 1) supply chain integration through trade facilitation and logistics reforms paving way for rapid growth of exports. FDI; 2) diversification of trade in services, especially to professional services beyond just Information Technology (IT) and IT-enabled services; and 3) strategic focus on regional cooperation and integration to take advantage of regional specialisation, economies of scale, market size, and production capacity (Roy, 2013 May 19). This paper focuses mainly on policies to achieve the first, greater supply chain integration; however, it is important to recognise that these reform areas are closely interlinked.

GSC Connectivity and Inclusive Growth

Over the past 30 years, GSCs have played a huge role in international trade. The extent to which GSCs have expanded over the last few decades is evident when analysing trade data, which shows that the foreign content of final goods has risen rapidly: traded goods contain more and more inputs from different countries. The WTO estimates that almost 30% of total trade consists of re-exports of intermediate inputs, a measure which has risen 10% since the mid-1990s (WTO 2013). The level of success among countries for achieving integration, indicated through higher foreign content of goods, varies with Emerging Asia and Mexico coming through as a clear frontrunner amongst emerging countries (Figure 1).

Figure 1: Foreign Content of Final Goods Exports (%)



Source: Koopman et al. (2010) NBER Working Paper

It is also important to recognise that some of the most important traded manufactured goods like electronics, automobiles, engineering, textiles, and certain classes of high-value chemicals are increasingly produced and delivered with a highly fragmented production network. An illustrative example is that foreign countries contribute 80% or more of the value added embodied in Chinese exports of computers, office equipment, and telecom equipment (Koopman et al, 2010). It is interesting to note that the percentage of foreign content in exports from special zones in China (China Processing), and Mexico are so much higher than their exports from outside the zones. Modern and effective zones and innovative clusters were created in these countries to better integrate into the global supply chains, and largely financing these through FDI. Unfortunately, India's attempts with government-controlled SEZs are completely out of line with these modern concepts of zones and clusters!

The rise of global supply chains and their effect on international trade represents a huge opportunity for emerging and developing countries to get on a path of sustainable and inclusive growth. Greater participation in GSCs enables producers along the production network, via management and technological diffusion, to become more competitive overall. In turn, countries that effectively integrate into international supply chains can enjoy greater levels of employment, productive capacity and greater growth. And moreover, these positive externalities increase the attractiveness of the country as a place for doing business, attracting greater levels of Foreign Direct Investment (FDI) and other types of capital flows.

It is important to note that trade and business facilitation policies promote *inclusive* growth, allowing small- and medium-sized enterprises (SMEs) to gain access to export markets.

Trade impediments tend to be more difficult for SMEs to overcome since large upfront investments are often needed. For example, the 2013 WEF Enabling Trade report found that many small firms found the personnel and time investments needed just to understand country-specific regulatory requirements, prohibitive. A "Perceptions of SME Survey" jointly carried out in 2006 by the OECD/APEC found that customs and procedures and domestic regulations are one of the most widely reported barriers to competitiveness (Fliess and Busquets, 2006).

Overcoming hurdles for SMEs is particularly important for emerging countries, in which SMEs are estimated to contribute up to 45% of employment and up to 33% of GDP (IFC, 2010). Additionally, SMEs contribute to economic development through positive externalities such as innovation and competition.

Getting Connected – Shifting Policy Priorities

In order to integrate into global supply chains, policymakers (and MNCs) need to prioritize improving the overall business environment that will reduce transactions costs behind the border, at the border and across the border.

Behind-the-border Transaction Costs

Behind the border transaction costs vary greatly by country and are largely dependent on a country's logistics capacity. Logistics reforms that impact transactions costs behind the border include: 1) transport infrastructure such as road, rail, ports, and airports; 2) reliable communications and technology infrastructure and 3) quality logistics services such as transport operators. Quality logistics behind the border allows for efficient and reliable movement of goods and services throughout the country, which translates into lower transaction costs (as well as greater SME market access by removing costly barriers). For example, the WTO (2013) estimates that the doubling of a country's paved roads can boost trade by as much as 13%. While logistics is a key driver of internal (or behind-the-border) transactions costs, other policies will also have a significant impact, including internal taxes or fees, competition-related restrictions on market access, and poor access to trade facilitating services, etc.

At the Border and Cross-Border Transaction Costs

Trade facilitation (TF) refers to policies that seek to minimise trade impediments and reduce costs at the border and across borders, facilitating greater integration with global supply chains (Mann). While most attention is typically given in TF to customs modernisation efforts, the ambit of TF includes many other important areas, such as port logistics, customs procedures, standards harmonisation, business mobility, trade information and e-business infrastructure, administrative transparency and professionalism, and effective government institutions; all of which have a substantial impact on transactions costs and the ability of countries to integrate into global trade (Roy 2013, June 24). According to UNCTAD, direct and indirect transaction costs, i.e., banking and insurance, customs, business information, transport and logistics etc., add up to 10% of the total value of world trade, a staggering sum of $400 billion.

Traditional trade policy tends to focus on applied tariffs on final goods and intermediate inputs; however such focus is not sufficient to achieve supply chain integration. In fact, data shows that the relative importance of tariff policies is second to the potential impact business and trade facilitation reforms offer. Figure 2 below provides the estimated increase in trade that a given country group could achieve by improving its business environment to that of the next country-group by income. One can see that relative impact of applied tariff reductions are much smaller compared to the opportunity afforded by an improved business environment.

Figure 2: Relative impact of traditional trade policy versus overall business environment

Increase in trade (as a percentage) due to changes in:			
Policy Change	1) Applied tariffs on processed and final goods	2) Applied tariffs on intermediates products	3) Business Environment Index
Middle to high income	2.6	4.8	40.7
Low to middle income	7.9	7.9	27.6
LDC to middle income	5.1	13.1	37.7

Source: UNCTAD secretariat (2011)

New Institutional Framework for the Next Generation Trade Reforms

The rise of GSCs means trade in intangibles as defined by management of knowledge, data, and support services (IT and ITES) are becoming increasingly more important. The impending automation of many manufacturing and services functions is already starting to re-define the relationship between labour and capital. Such drastic changes require a highly efficient trade and investment environment (low transaction costs), and strategic thinking from the policy-makers who manage this relationship.

The current institutional arrangement in most developing countries that disperses strategic decisions to the Ministries of Commerce and Industry, Finance, and External Affairs lacks the necessary depth.

In order to separate the strategic decision making process related to trade and industrial policy from day to day operational issues, a new independent Trade Policy Council (TPC needs to be developed outside the line ministries and which reports directly to the Prime Minister/Head of State. Its role could include strategic decisions on multilateral, bilateral, and regional trade policy, policy related to FDI and policies related to trade facilitation and reducing transaction costs of trade including domestic regulatory reform, strategic policy making on improving country's competitiveness and policies to improve logistical capacity and connectivity with the rest of the world including skilling and technological acquisition.

Why India is way behind in Linking to GSC compared to East Asian Economies

The key to successfully increasing Indian manufacturing exports is integration of manufacturing into global production networks. But high transaction costs of producing and trading across borders have meant that Indian manufacturing historically operates largely outside this system of production networks. India remains one of the least integrated emerging economies in terms of participation in global supply chains –Figure 1 above clearly shows that foreign content in final exports in India is just 18%, compared to over 30% in other emerging countries.

Global supply chains that define such production networks need to be cost effective, time bound and certain. None of which can be guaranteed in Indian conditions with poorly designed and implemented regulations combined with inadequate infrastructure. The integration of Indian SMEs, which have great potential, into such global networks, is especially held back due to such high transaction costs, as large Indian firms are often able to surmount the difficulties posed by working in the Indian environment and credibly signal their ability to do so. Thus, any government that seeks to champion the cause of SMEs, and growth of employment in manufacturing through export development cannot but take the issue of transaction costs and trade facilitation as a high policy priority.

The overall quality of logistics services and supply chain efficiency are dependent on the quality of regulatory services (business facilitation) provided by the government. These regulatory services include customs clearance, domestic indirect tax collection and processing, regulatory services related to the screening of health and other standards of imports, and local (state and municipal) tax collection. Other government services include those provided by public sector airport authorities, ports, highways, and rail container movement among others. The critical policy questions for India are whether a) it has a concrete plan in place to deal with the current challenges of trade and business facilitation, and b) whether there is a more longer-term plan for making India ready for the new trends in manufacturing that would require even more fundamental improvements in trade and business facilitation and supply chain efficiency.

The Indian government needs to shifts its focus immediately to trade and business facilitation reforms to boost trade as well as to attract larger inflows of FDI. India, with 250 million plus and growing middle-class consumers, will easily attract market-seeking FDI, i.e. investment that seeks to serve its domestic consumers irrespective of business environment. But the crux of becoming competitive and creating those extra millions of jobs that India desperately requires would lie in its ability to attract efficiency-seeking FDI, i.e. investment that uses India as a manufacturing base for global production and innovation. Such FDI would integrate Indian entrepreneurs into the global market by exposing them to the best technologies, marketing networks, and management systems.

Policy Recommendations for India

The critical elements of policy required to integrate into global supply chain are a) relatively low tariffs (to allow easy importation of intermediates) and a simplified tariff structure, b) regulatory environment that is attractive to FDI in manufacturing, c) a taxation system that ensures that no domestic taxes are exported (i.e. zero-rating of exports), d) an environment of low transaction costs of operating across borders, and e) strong logistical linkages, especially with regional economies. India currently lacks the comprehensive reform initiatives in place to achieve any of the five above mentioned critical elements. A basic policy objective to integrate into regional production chains in South East Asia should be to bring Indian applied tariff levels down to the levels achieved by major ASEAN economies (from 14% to 9%).

Integrating into international production chains also requires a domestic taxation system that is relatively transparent, stable, simple, and ensures that no element of domestic tax is passed on to exports. It is obvious that if the added cost of domestic taxes is passed on to the price of the exported product it will make such products less attractive for procurement within a price-sensitive global supply chain. The long standing demand of Indian exporters of a long overdue comprehensive nation-wide goods and services tax (GST) to replace a complicated domestic tax structure has now been implemented, however, the ideal GST must have a low uniform duty for goods and services with minimal exemptions. A related

demand has been the removal of all state and local taxes that are not rebated to exporters to ensure complete zero rating of exports in terms of domestic taxes.

Tariff policy alone will not be sufficient. Simultaneously, we need to urgently push the remaining trade facilitation reforms which were outlined in the 2004 Ministry of Finance Working Group on Trade Facilitation Report that I chaired. The key recommendations were:

1. To rely on a system based on trust with reliance on self-certification of importers, ex-post audits and minimal physical inspection;

2. Speedy clearance with full reliance on a state-of-the art risk management system

3. Introduce full automation leading to a paperless system with minimum face to face contact and signatures

4. Cargo dwell time reduced to levels comparable to the best performers in South-East Asia.

5. Most importantly, quarterly monitoring of cargo-dwell time in major ports and airports by a High-Level Inter-Ministerial Committee with the full attention of the Prime Minister

In addition, a comprehensive program to reduce the cost of movement of goods behind the borders from hinterland to ports needs to be undertaken. Its primary goal should be to identify the regulatory bottlenecks to fast and efficient cargo movement within India and their rectification. Such an initiative would need full participation of all key ministries, state governments, the private sector and would thus require considerable political support. The regulatory bottlenecks holding up development of ports, coastal shipping and air-cargo should also be addressed.

As discussed in the previous section, India also needs to adopt a new institutional framework for trade policy outside the line ministries, reporting to the Prime Minister where strategic policies are undertaken separately from implementing these policies which, should be left to the line ministries. As previously (2013, September) spelt out, three different offices should fall under a Trade Policy Council reporting to the Prime Minister-Office of the Chief Negotiator for strategic decisions on multilateral, bilateral and regional issues; an Office of the Chief Trade Economist to handle strategic decisions on regulatory policies, skill development and manufacturing competitiveness; and a Director General of Trade Facilitation to reduce trade, transportation and logistics costs.

To highlight what is stated above, India's Chief Trade Negotiator must, as Hoekman and Jackson (2013) argue, "Think supply chain when designing trade agreements and move away from the traditional approach of looking at trade facilitation in specific areas such as product standards, customs valuation, and import licensing in isolation. For supply chain operation what matters are all the regulatory policies that affect the chain as a whole. An item-by-item approach may leave some important policy areas unaddressed".

India does not have the luxury of time. While supply chain efficiency is critical to manufacturing competitiveness, in the present scenario of mass production represented mostly by large-scale assembly line production systems that have remained more or less un-changed since the early 20th century, rapid changes fueled both by technology and shifting consumer preferences and behavior (driven by the emergence of the global middle-class) is going to bring some very significant changes in how manufacturing is organised and managed. Some of these trends are already visible in the growth of greater customisation of both final as well as intermediate goods and the use of e-commerce platforms. Such shifts in how global production systems are organised are already seeing India's competitors putting in huge investments in logistics and trade facilitation. India risks being left behind, and thus the time for logistics, trade and business facilitation is now!

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Dr. Vishwapati Trivedi
Former Secretary to *Government of India, Ministry of Shipping*
Former Chairman
National Shipping Board
Former Chairman
Inland Waterways Authority of India

About the Author

Dr. Vishwapati Trivedi completed B.A. Honours in Economics from St. Stephen's College, Delhi and MSc Economics from the London School of Economics in 1975. He was awarded a PhD in International Economics from the Simon Fraser University, Canada. He is also a law graduate and an accomplished arbitrator.

Later, Dr. Trivedi joined the Indian Administrative Service in 1977 and served in several very important positions such as Managing Director of the M.P. Financial Corporation, Commissioner VAT, Principal Secretary Industries, Chairman and Managing Director, Indian Airlines/Air India, the national airlines of India.

Dr. Trivedi brings several years of experience in the maritime and port sector issues as he was Secretary to Government of India in the Ministry of Shipping overseeing the functioning of 12 major ports of India. He was also Chairman of the Inland Waterways Authority of India and Chairman, National Shipping Board, in the Government of India.

Dr. Trivedi has worked at the Economic Advisory Services at the World Bank and as Technical Assistant to the Executive Director in International Monetary Fund, Washington D.C. USA.

He has written several reports in maritime matters and is an expert in public private participation projects in the port sector. He also teaches maritime subjects at the World Maritime University (a UN University) in Malmo, Sweden.

Transloading: A Port Capacity Multiplier

Introduction

Compared to other emerging economies, India is clocking a relatively higher growth rate. This implies acceleration in the growth of the international trade in goods. An aggressive international trade policy combined with 'Make in India' program is expected to further boost volumes of export and import. The easing of trade among the neighbours via free trade zones is also likely to add to EXIM trade. The Foreign Trade Policy 2014-19 is targeted towards increasing India's share in world trade to 6% by 2020, an increase of 100%. Factors such as private consumption, public investment and enlarging the manufacturing base through "Make in India" and "Ease of Doing Business" will eventually drive trade volumes.

Some estimates of India's freight market

Indian freight transport market is expected to grow at a rate of 13.35% by 2020 and it is expected to cross the US$ 3 bn mark. This implies a commensurate increase in the road and rail freight movement of an equal measure. Even other modes of transport such as inland waterways and air cargo are likely to see higher rates of growth. This clearly points towards how a multi-modal synchronised transportation network will become inevitable. So will the strategy to optimise the logistics and the supporting legal and physical framework. GST is one such huge step in the right direction. By reducing the trade barriers and allowing the trade to optimise their supply chains and logistics hubs, the logistics costs are bound to come down.

Given India's vast expanse, rail and road are not the only efficient ways of transportation under all circumstances. A lot more can be achieved by an integrated network, which maximises its outcome by exploiting the geographical advantage of India's long coastline.

As brought out above, in line with the increasing private and public investment leading to a higher and a more complicated consumption pattern, the logistics chains will have to suitably respond. A large part of this higher economic activity will show up as imports and exports. More than 90% by volume and around 70% in value terms gets reflected in EXIM trade.

Most of this trade takes place through ports, both in volume and value terms. Both the import and export goods are transported to the hinterland either through road or rail. And with improved road and rail connectivity and the growing emphasis on inland waterways in India, the bottleneck is now likely to arise due to the inadequate capacities at ports. Without the port capacity keeping pace with the growing trade imperatives, this sector is likely to under-perform, thereby, leading to higher overall logistics cost and reducing competitiveness of the country's manufacturing sector.

Logistics cost in India is already one of the highest in the world. Since transport is a large proportion of the overall logistics cost, any success in reducing transportation costs will have a high impact on reducing the logistics costs. One of the hidden costs of transportation by rail and road is the high cost of theft and pilferage. As per some estimates, it is at almost two-thirds of the transportation costs. There are

also costs due to pollution (which is aggravated by congestion). And last, but not the least, the costs of human lives lost due to accidents. Any social cost-benefit exercise will show not just a large loss that we as a country are continuing to bear, but also an opportunity lost to earn carbon credits by addressing the issue. In other words, any modal shift, or technology that saves these costs will necessarily reduce the overall logistics costs in India.

In this article I will invite the attention of the reader to 'transloading in high seas' as an innovative viable sectoral intervention, that in the short term, can yield high dividends by reducing logistics costs.

Transloading in the high seas is a process whereby very large size vessels (Panamax or Capesize) are emptied or loaded in the high seas, sometimes with the help of transloaders, without the need to come to the port. The barges, or smaller vessels, which carry the transloaded cargo, either use the coastal routes or inland waterways to deliver the cargo to its destination, or to the next mode of transport, either rail or road.

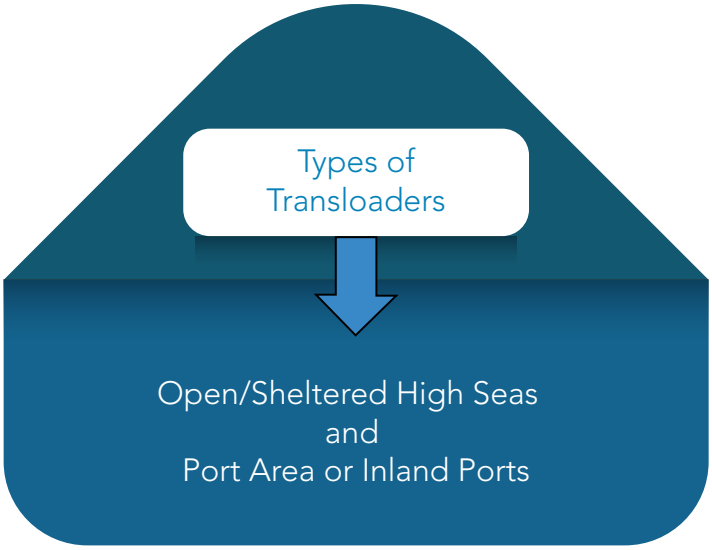
Transloading in high seas is not a new concept. In India it has been done both on the west and the east coasts in small ways. The entire iron ore export from Goa used to be through barges that carry iron ore from the inland mines or shore, directly to bigger ships parked in the high seas for exports to China, Japan etc. The use of floating cranes in Kandla port and the use of barges in the many small rivers are instances of moving cargo by several modes of transport i.e. transloading. Markets and opportunity of profits drive such innovation in different ways, but an organised policy drive to encourage such an activity is likely to yield multiplied benefits.

These transloading operations are not always competing with port capacities, but are often port capacity multipliers. In other words, transloading is a process of shifting cargo between different modes of transportation, and is generally used when international cargo moves between high seas and domestic locations. Typically, it will be able to multiply the capacity of any port by overcoming the following types of constraints:

- When there is a draft limitation. For example Goa port. Unless dredged, which is happening now at a huge cost and possible damage to its coastal biology.
- When the port is a "tidal" port. For example Kandla port. The tidal ports are generally slow to clear the vessels, as it waits for the high tide to turn around the ships.
- When capital dredging costs are high for the entire channel. For example Kolkata. From Kolkata to the Bay of Bengal, the siltation and consequently the 'maintenance' dredging costs (about ₹ 300 crore, or US$ 0.5 bn, per year) are so high, that it is no longer a viable port. Hence, usage of smaller vessels/ships is needed to negotiate the channels.

- When there is a capacity constraint for handling bulk cargo. Most major ports in India suffer from this handicap. An average trans-loader can handle 10,000 - 60,000 + MMT on a daily basis, besides being able to also store, leading to significant reductions in turn-around time; besides saving fuel, it also leads to elimination of demurrage and consequent litigation.
- When there is congestion at the port. For example Paradip and Visakhapatnam ports on the East coast of India. Due to inadequate capacity to evacuate fast, arising from lack of available bonded storage space and connectivity to the hinterland.
- Reducing the number of handlings (of cargo) results in significant reduction of cargo handling losses and pilferage, a malady faced by bulk cargo, especially coal and ores.

There are two types of locations where transloading is done. These are shown below:



Port area or inland port transloading

The world over, transloading has been used as a standard practice to transfer cargo from one ship to another ship or a barge through a transloader. In 1888, the British cargo and passenger ships anchored at Nantong port (now Tiansheng Terminal), about 155 kilometers away from the mouth of Yangtze River and used transloading to carry cargo/passengers to the main port by smaller ships. During the initial

economic boom years of China, transloading was very popular at Shanghai, Haikou and Guangzhou. Later when the commerce expanded and prosperity kicked in, the Chinese ports invested and increased the port capacities, leading to lesser dependence on ship-to-ship transfer. But the backbone of inland waterways in China formed by Yangtze and Pearl Rivers always supported inland transportation from Shanghai, Guangzhou and Nantong ports. With a downturn in the Chinese economy, the businesses are again exploring ways to reduce logistics cost via transloading operations.

For bulk cargo, such transloading practices were popular in Hong Kong, although it has reduced now as the traffic in Hong Kong port is veering more towards containers.

In the Netherlands, transloading is a common practice in deep seaports such as the Port of Rotterdam, the Port of Amsterdam and the Port of Zeeland, at the mooring stations either for additional capacity generation or for lightering the very big size vessels.

Open sea or sheltered water transloading

A very well-known example of transloading at the high seas is from Mozambique. The Moatize coal project is expected to be $ 1.2 bn and will transport the coal mined in Moatize by Vale, the Brazilian mining giant. The project has been designed with high standards of anti-spillage equipment and is expected to meet the most stringent environmental standards set by the International Maritime Organization.

The coal, mined over 600 miles away from the port has to be loaded into The Beira Port in Mozambique which cannot host Panamax/Capesize vessels because of its capacity and draft constraints. Therefore, offshore transloading is being done by customised transloaders made by Coeclerici Logistics. The coal is brought to the port from the inland mines and is then transported via a channel (depth of 8 meters and width of 135 meters) to the Ocean Gong Vessels.

Another concept of offshore hub designed by Royal HaskoningDHV is of Floating Container Storage & Transshipment Terminal, which is a container ship, converted to a storage platform with a crane. The idea is that a floating terminal is mobile and can be moved as a capacity add-on wherever a need is felt.

In India, a successful project at Sand Heads in the Bay of Bengal has been commissioned in 2013, to handle imported coal for NTPC Thermal Power Station at Farakka in Bengal. The Inland Waterways Authority of India (a statutory body under the Ministry of Shipping, Government of India) coordinated the project for NTPC (National Thermal Power Corporation, a public sector undertaking and the biggest thermal power generating company in India with multiple plant locations). This project was bid out to large shipping logistics companies and was won by Jindal ITF. The bid criterion was the lowest per kilometer per ton rates offered. The imported coal from Australia or Indonesia was brought to Sand Heads, a place in the Bay of Bengal, 100 kilometers away from the Kolkata port. At Sand Heads, a sheltered high seas location, the coal is transloaded into a large transloader (like a ship, but with cranes and a belly to store, into smaller barges. The barges, about 3,000- 6,000 DWT in capacity, then transport the coal directly to NTPC Thermal Power Plant in Farakka via a 500 kilometer channel, the National Waterway number one, or Ganges/Hooghly. It resulted in an almost 15% reduction in the cost of handling coal by NTPC.

During monsoons, the operation is shifted to calmer waters closer to the shore at Kanika Sands. This was the largest transloading project in India. And the success of this operation was a proof of concept. The experience gained from it as well as the issues raised by the stakeholders at different forums, generated a large interest in the concept.

Lessons learnt from the NTPC-Farakka Coal Transloading Project

Cargo assurance is important: There should be some assured cargo initially and ports must encourage providing concessional jetty space to smaller vessels and if going through the port limits without touching the port, they must not impose too many financial or physical restrictions. The Project worked because there was a commitment from NTPC for a minimum off-take of 3 mn tonnes per year through this project. The guarantee of a fixed amount made the project viable for the private sector to participate.

Suitable locations must be available: Farakka, with its easy approach from the National Waterways and the availability of a location such as the Sands Head in the Bay of Bengal, at least in fair weather. Combined with the availability of Kanika Sands, which is a deep draft, all-weather anchorage point, off Hoogly river mouth in Bay of Bengal. Made year-long operations possible.

Special Barges (River Sea Vessel (RSV) Type II/III) barges are needed. The design and funding of such vessels by the financial institutions must be standardised.

Inland Waterways Authority must ensure that the waterways are well dredged and LAD (Least Available Depths) is available throughout the year. They must resolve local problems along the waterways such as that of the fishing nets and other hurdles like bridges across rivers.

Customs is a game spoiler: As customs have to clear the vessel and the cargo, they should be willing to go to the anchorage by boat and the jurisdictions must be clearly demarcated. Government has to strictly follow the same rules at all the Customs Commisionarates.

After initial hiccups, the project started delivering imported coal cargo successfully. If the imported coal continues to be used for the thermal power plants in India, such projects can deliver efficiency, value and cost reduction. About 10 more thermal plants are expected to come along the National Waterways with an installed capacity of 15,000 MW. The prospects of using these waterways, specially the National Waterway 1, for coal initially and then for other products and goods are immense. We need an active government support and a mind set to address the coordination issues. The declaration of the Government of India for developing 111 waterways is very promising and transloading can play a very important role.

The experience of the NTPC-Farakka Project brought out the fact that alternate mechanisms to expand port capacity can bring down the logistics costs. It also underlined the fact that if such operations are to be carried out in other ports, several issues of customs operating procedure and regulatory issues will have to be sorted out.

At a policy level, it must be taken into consideration that the inflexibilities arising out of 'lumpy' investments restrict full capacity realisations, when required to stretch due to seasonal short term increase in demand or due to sudden flow of cargo from one port due to change in the pattern of demand. Dredging, as a policy to increase the capacity to handle larger cargo ships, was limited to some ports. The costs associated with maintenance dredging and the continuous struggle with environmental issues justified recourse to some alternate policy measures. The advantage of moving as much cargo as possible directly from the transloading points in the high seas through the waterways was a solution to several such issues. Combined with the proposed mega intervention of the Government of India into developing 111 National Waterways (as compared to only five National Waterways two years back) will present a huge opportunity for the blue economy infrastructure, wherein the port capacity is spared and the transloading operations at high seas readies the cargo for direct transportation to the place of consumption.

In real life, any such new type of operation is confronted with several challenges. But, as implementation of projects takes place, any policy will move towards maturity, the sharp edges are smoothened and eventually the environment becomes automatic and self-enforcing. I hope the same will happen with the policy of "transloading".

Chapter 7
INPUTS FOR POLICY FORMULATION

The results of the Port Performance Index and the discussions with various stakeholders in the port ecosystem regarding the on-ground issues and challenges faced by the exporters, importers, customs house agents and freight forwarders while trading with the 14 ports under study have thrown numerous interesting perspectives which need to be deliberated upon.

The key broad findings of the study are that processes and operations across the ports are not standardised or uniform. For instance, the number and type of documents required for a particular purpose may vary from one port to other. Further, while one port follows manual procedures, another may follow digital/online process or a combination of both.

These differences have resulted in high levels of inefficiencies and extreme variations, both in terms of time taken and costs incurred. What is also worrying is the fact that there exists an unexpected level of variation for time and cost across ports as well as within a single port which leads to inefficiency and uncertainty in trade, thereby impacting competitiveness.

During the study, we identified several critical issues and challenges plaguing the Indian port ecosystem, as discussed in detail in Chapter 4. In fact, some of these challenges are outcomes of certain inefficient practices such as prevalence of non-standardised/non-uniform processes and operations at ports, among others.

It is pertinent to note that this non-standardisation among the stakeholders and across ports has led to uncertainty for the exporters and importers as to what the final logistics cost and time for key processes would be, which has further ramifications in terms of adversely impacting the supply chain and related costs.

In order to introduce some level of predictability of time and cost to the trade, the government has taken several commendable initiatives, for instance Direct Port Delivery or announced measures to control certain charges levied by the shipping lines. However, some of these initiatives have not met the targeted timelines and need to be followed through completion. The benefits to trade as envisaged have not been realised completely.

A focused approach towards arriving at an actionable and effective solution of the addressable issues could largely bring down the transaction time and cost of trade. In light of the inherent characteristics of the port ecosystem and the resultant challenges faced by trade, this chapter summarises the policy inputs that could be considered for policy formulation and implementation by the relevant stakeholders associated with the

port eco-system. The government has already taken various initiatives in this regard and many more are on the anvil towards facilitating ease of doing business.

Since the time-frame and effort taken to implement the various initiatives suggested in this report is expected to vary it has been divided into two sections i.e. First phase and Second phase. Overall there are 62 policy inputs suggested under 12 broad categories. The 12 broad categories have been further classified into three sections: policy inputs that could be considered to be implemented in the short term and those that could be implemented in the medium to long term. It has been realised, that the impact areas, of regulatory and legislative aspects of certain suggested policy inputs, needs further feasibility study based on economic rationale and thus have been grouped under a separate section i.e. needs further study.

Policy inputs (First phase)

1. Promote DPD & DPE to facilitate container trade
2. Ensure transparency in shipping line charges & operations and regulate shipping line/promote domestic shipping lines
3. Common digital platform – Create and bring all stakeholders on a single platform proposed as 'National Portal for Cargo Facilitation (NPCF)'
4. Enhance Customs clearance process
5. Promote 24x7 operations across stakeholders
6. Periodical performance audits/monitoring of terminals & resolution of tariff disputes

Policy inputs (Second phase)

1. Standardise trade processes across ports and stakeholders
2. Consolidate CFS, convert them into warehouses and link all with railways
3. Augment rail infrastructure & operations
4. Overhaul physical infrastructure & enhance productivity
5. Rationalise documentation, process all documents through a common digital platform proposed as "National Portal for Cargo Facilitation
6. Timeframe for regulatory clearances

The 62 inputs suggested for policy formulation under the 12 broad categories and their respective timelines and the probable responsible authority for implementation have been discussed in detail below.

First Phase

Promote DPD and DPE to facilitate container trade

Policy Input	Implementing Authority	Implementation Timeline
Provision to mention DPD status in the documentation with the shipping lines	Customs department & Shipping lines	Short Term
Increase in awareness campaigns for promotion of DPD	Customs department & Industry Associations	
Creation of a common portal on CBEC website as a uniform source for information on DPD/DPE	Customs department	
Development of an information dashboard for providing real time updates	Terminals or Port Authority	Medium to Long Term
Incentivise advance filing of BoE	Customs department	
Eventual extension of DPD facility to all RMS facilitated BoE	Customs department	
Advance release of Delivery Order /Timely release of Delivery Order	Customs department & Shipping lines	
Increase the number of container scanners at ports	Customs department	
Upgrading the infrastructure and cargo handling capabilities at terminals	Ports or Terminals	Needs Further Study
Developing a mechanism for accepting electronic B/L for issuing Delivery Order	Customs department and Ministry of Shipping	
Setting up system of filing 'Advance Manifest' by shipping lines	Ministry of Shipping, Port authority and Ministry of Finance	
Make DPD mandatory for container trade across all ports	Customs department	

Short Term

1. Provision to mention DPD status in the documentation with the shipping lines

At present, importers availing DPD facility inform the shipping lines about the nature of the delivery (whether DPD or not) via email. There is no provision to include this information in any official documentation with the shipping lines. Many a times, the importers delay in informing the shipping lines. This leads to errors in the destination mentioned by the shipping lines on the Import General Manifest (IGM). Shipping lines often mention the CFS name instead of the terminal for DPD. Amendments in IGM filed by shipping line entail additional time and cost. The Customs department and Ministry of Shipping could make amendments to include this information as a mandatory field in the documentation (for example in the B/L) which would reduce the instances of errors and therefore save the time and cost for making amendments.

2. Increase in awareness campaigns for promotion of DPD

Increase in widespread awareness programs for trade highlighting the potential benefits of DPD. These awareness campaigns should also focus on smaller firms typically located in the hinterland or interior regions. The Customs department should also involve industry associations and trade bodies in developing these campaigns for reaching out to members of trade. Awareness programs could involve workshops conducted by customs or industry associations and also media campaigns.

3. Creation of a common portal on CBEC website as a uniform source for information on DPD/DPE

The Customs department could take the initiative of creating a common portal for DPD & DPE for all the ports on the CBEC website that will help to clarify policy aspects and keep track of any amendments thereof. All the Standard Operating Procedures (SOPs) pertaining to different ports should be published on the CBEC website. This will help the exporters and importers to obtain information from a central source thereby, reducing the confusion arising from multiple notifications from different sources.

Medium to Long Term

4. Development of an information dashboard for providing real time updates

This measure will benefit both DPE and DPD, as real time updates to the trade or custom brokers will save time and associated costs incurred due to shut-out or congestion at the port. For exporters availing DPE, real-time updates are important as accordingly the exporter can plan the delivery arrangement with the transport operator and avoid missing the cut-off time for container loading. This in turn will save shut-out charges and avoid delay in obtaining LEO. In case of DPD, having real time updates of container unloading will help the importers to plan better to dispatch trucks for collecting the DPD cargo. This way they can avoid waiting time and save additional waiting charges payable to the transport operator. *While we are also proposing establishing a National Portal for Cargo Facilitation (NPCF) that will incorporate real time updates, in the short run the terminals or the port authorities could create an information dashboard which is easily accessible by the EXIM.*

5. Incentivise advance filing of Bill of Entry

Customs department has made advance filing of BoE mandatory for DPD imports trade as per the circular P.N NO. 164/2016. Advance BoEs are filed before the shipping line files IGM. However, importers are often not able to file advance BoE in time due to inability to arrange finance, ICEGATE downtime, sudden queries received from ICEGATE to resubmit due to technical reasons, etc. Advance filing is a must for DPD to truly takeoff; therefore, it is important to ensure that the issues of delay in advance filing of BoE are addressed. Also, strengthening the existing digital infrastructure (as suggested in policy inputs for digital infrastructure) will reduce instances of delay in advance BoE due to ICEGATE issues. Another initiative could be not charging for BoE amendments for DPD goods and further simplification of the amendment process. These steps by the Customs department would encourage timely filing of advance Bills of Entry and thus provide a boost to DPD.

6. Eventual extension of DPD facility to all RMS facilitated Bills of Entry

As a step towards increasing the share of DPD, the Customs department could extend DPD facility to all RMS facilitated BoEs. The percentage of BoEs facilitated by RMS at JNPT as of March 2017 is 57.15%. With the increase in RMS facilitated clients, as intended by the Customs department, the DPD share will progressively grow. However, this measure also needs to be accompanied by installation of adequate scanners across ports, which will facilitate the necessary clearance of cargo.

7. Advance release of Delivery Order /Timely release of Delivery Order

Timely issuance of Delivery Order by shipping lines is indispensable for importers, especially for those availing DPD. The delay in issuance of DO often inflates cost for trade in the form of detention/demurrage. At JNPT, for instance in June 2017 approximately 34.9% of the DOs were issued 48 hours after vessel arrival. It should be made mandatory for shipping lines to issue Delivery Orders for DPD cargo, either in advance (24-36 hours) or maximum within 48 hours, provided the importers submit the necessary documents and make payments to the shipping lines. The Customs department and the shipping lines could arrive at a monitoring mechanism for ensuring that DOs for DPD clients are expedited. The adoption of e-DO can be considered as a solution provided it is issued on time, as currently even issuance of e-DO by the shipping lines is delayed. Issuance of advance invoicing and acceptance of payment by the shipping lines on a 24x7 basis can, to a certain extent, reduce the uncertainties related to shipping line charges for the importers, who in turn can make the necessary payments and submit the documents for release of DO.

8. Increase the number of container scanners at ports

There is a need for installation of more high capacity scanners at container ports to ensure faster clearance of cargo. However, the DPD initiative stands to gain from this initiative as this move along with extension of DPD facility to all RMS facilitated BoE would ensure faster clearance and thereby increased efficiency of cargo evacuation through DPD. The Customs department has already initiated procurement of container scanners at ports, however, this should be expedited.

Needs Further Study

9. Upgrading the infrastructure and cargo handling capabilities at terminals

The infrastructure and operations at terminals have to be continuously improved to keep pace with the surge in trade volumes due to DPD. The limited storage space at terminals for DPD containers could lead to congestion and consequent increase in the operating costs for trade. However, allocation of additional yard space would involve aligning several stakeholders and also legalities pertaining to the agreement between port authorities and terminal operators. Acquiring more number of CHEs and increasing the efficiency of existing CHEs would be a step towards ensuring speedy cargo evacuation and prompt direct delivery to the importers. To implement this policy input a thorough feasibility analysis would be required to suggest the implementation mechanism.

10. Developing a mechanism for accepting electronic B/L for issuing Delivery Order

A system should be put in place wherein the importers can electronically submit Bill of Lading to the shipping lines. At present, shipping lines accept original Bill of Lading in hard copy before IGM filing in accordance with the Bill of Lading Act. This is a challenge for many importers as they are often not able to receive the original hard copy of Bill of Lading from the exporters/shippers in time. This is especially applicable for short transit vessels.

11. Setting up a system of filing 'Advanced Manifest' by shipping lines

A mechanism should be developed for filing of 'Advanced Manifest' by the shipping lines in line with international practices. Globally, the Advanced Manifest is filed by the shipping lines 24 hours before the vessel departs from the port of loading. This document is then electronically shared with the importer and Customs department at the port of landing. Such a process gives prior intimation to Customs department regarding security risk or compliance and to importers regarding departure of their containers. Importers could benefit as prior knowledge would reduce the probability of making errors in filing BoE and save time and cost for making amendments. This mechanism could be set up after discussion between the Customs department and the Ministry of Shipping regarding the modalities and infrastructure required.

12. Make DPD mandatory for container trade across all ports

Customs department could bring out a directive to make DPD mandatory across all container ports in India in the long term. This would provide a fillip to containerised trade. Concomitantly, ports will have to upgrade their infrastructure to cope with the rising containerised trade. Importers will also benefit from this by getting prompt delivery directly from terminals and will be able to avoid transit time and transportation costs arising due to involvement of CFS. However, as infrastructure expansion is a long-term process involving regulatory clearances and approvals, this measure would require alignment of all the relevant stakeholders and authorities. The evacuation period for DPD and non-DPD importers should be standardised across container ports. The gradual shift of trade from non-DPD to DPD will thus expedite evacuation. This measure would seek to address the issue of congestion due to increasing DPD volumes. However, such an initiative would have to be put in place after a detailed cost benefit analysis.

Ensure transparency in shipping line charges & operations and regulate shipping line/promote domestic shipping lines

Policy Input	Implementing Authority	Implementation Timeline
Stringent monitoring of the charges levied by the shipping lines (as listed in the DG Circular No. 1 of 2016)	Ministry of Shipping	Short Term
The shipping lines should publish complete details of the tariffs, along with scope of their services, on their respective websites and not levy any other charges not published/declared beforehand	Ministry of Shipping and Shipping lines	
Shipping lines/NVOCCs need to declare their charges in advance	Shipping Lines/ NVOCC	
Ensuring that both CFS and shipping lines do not charge traders for the same kind of services	Ministry of Shipping and Customs department	Needs Further Study
Regulations can be framed on similar lines as issued by Sri Lanka (Circular No. 1842/16 -2013) on the Shipping line charges		
Establish a regulatory body for the shipping sector		
Promote the Indian shipping industry		

Short Term

13. Stringent monitoring of the charges levied by the shipping lines (as listed in the DG Circular No. 1 of 2016)

A monitoring mechanism should be implemented by the Ministry of Shipping to ensure that shipping lines do not levy the 25 charges as listed down in the DG Circular No. 1 issued in September 2016. The clarification of the circular issued in December 2016 also states that 'no new charges should be levied or the charges held as non-leviable in the advisory should not be re-introduced with a different nomenclature'. In order to ensure that it is implemented, an expert body is required to be put in place by the Ministry of Shipping that could comprise of representatives from the Ministry of Shipping and the Customs department to monitor the charges and address the issues raised by EXIM as well as the shipping lines.

14. The shipping lines should publish complete details of the tariffs, along with scope of their services, on their respective websites and not levy any other charges not published/declared beforehand

The shipping lines, both domestic and foreign, should publish complete details of the tariff along with the nature of the services provided in their websites and not levy any other charges not published/declared beforehand. This would enable the EXIM to gain clarity on the charges levied by the shipping lines and also to compare deviation, if any, of the charges declared and raised in the invoice.

15. Shipping lines/NVOCCs need to declare their charges in advance

Advance invoicing should be made mandatory for shipping lines/NVOCCs and forwarders across ports (the number of days in advance could be set/calculated as per the minimum time required to travel from the load port). Majority of shipping lines do not provide an advance invoice. Mandatory advance invoicing should be imposed as this will enable importers to fairly estimate their transaction cost. If any additional charges are required to be levied, post the arrival of cargo, for example container damage charges, it should be communicated along with necessary documents to both the importer as well as to any other designated regulatory authority, (in this case it could be the regulatory body set up by Ministry of Shipping for the shipping sector). It should be made mandatory upon the shipping lines to mention and quantify all the charges to be recovered from the importers in the Bill of Lading when issued from origin and recover only those respective charges. This would be on similar lines as mandated by Sri Lanka and Bangladesh.

Needs Further Study

16. Ensuring that both the CFS and shipping lines do not charge traders for the same kind of services

To provide clarity on the charges imposed by the shipping lines and the CFS, the Ministry of Shipping and the Customs department should make it mandatory for the shipping lines and the CFS, not only to list their charges on the websites of the respective entities, but also to clearly define the nature of services for which the charges are being imposed. The ownership/custodian of the cargo at different stages of operation before it is released to the importer, should be appropriately defined by the shipping lines, terminal operators and the CFS in their terms of contract/documents with the EXIM so that there is no overlapping of charges for the services provided by the shipping lines, terminal operators or the CFS. It would also assist in solving any kind of discrepancy arising in instances such as delay in delivery of cargo due to delay in documentation, lack of efficiency of the terminal operators for timely release of cargo, improper handling by the CFS or nature of services/facilities provided by the port.

17. Regulations can be framed on similar lines issued by Sri Lanka (Circular No. 1842/16 -2013) on the shipping line charges

For enhancing the transparency of doing business with India, regulations can be framed on the similar lines issued by Sri Lanka (No. 1842/16 -2013) on the charges to be levied by the shipping lines to bring in greater clarity and simplicity of the shipping line charges. However, suitable guidelines need to be laid down in this regard, after due consideration of the various aspects of the services provided and charges levied by the shipping lines and the issues raised by the EXIM by the Ministry of Shipping and the Customs department.

Some of the salient features of the circular passed by Sri Lanka (No. 1842/16 -2013) states that

1. Every licensed Shipping Agent,Freight Forwarder,Non-Vessel Operating Common Carrier and Container Operators (herein referred to as the " licensed service provider") who carries on the business of a shipping agent,a freight forwarder,a non-vessel operating common carrier, a container operator or a consolidator of cargo shall issue a clean bill of lading which species the consignment of goods as a "Pre-paid Freight" or "Freight Collect".

2. No Bill of Lading shall specify the consignment of goods as "Zero Freight".

3. (1) All charges on containerised cargo which cover entire cost of the carriage of goods referred to in the transport document from the origin to destination, shall be included in the all-inclusive freight specified in the Bill of Lading which shall be recovered only from the party who is contractually bound to pay the same.

(2) The "all-inclusive freight" referred to in Sub-section (1) shall necessarily include

(a) Charges on full container load
(b) Terminal handling charges
(c) Charges for issuance of Bill of Lading
(d) Charges on less than container load cargo (if applicable)

(3) For the purpose of these regulations "origin to destination" in relation to the carriage of containarised cargo means the carriage of goods from

(a) Container yard to container yard; or
(b) Container freight station to container freight station; or
(c) Container yard to container freight station; or
(d) Container freight station to container yard.

4. No licensed service provider shall charge from an importer in Sri Lanka, any charge other than the all-inclusive freight, where the importer is contractually liable to pay, subject to regulation 3(1) for the carriage of goods from the origin to destination as specified in the Bill of Lading;

   Provided however, any licensed service provider may charge a delivery order fee from the importer which shall be payable in Sri Lankan Rupees.

5. (1) Where a delivery order is being charged by a licensed service provider, the amount of delivery order fee so charged shall be informed to the Director of Merchant Shipping by such licensed service provider, for the purposes of record.

   (2) If any licensed service provider intends to increase the amount of delivery order fee, an application in that behalf shall be made to the director together with the documentary evidence supporting such increase. Etc.

6. No licensed service provider shall charge from an exporter in Sri Lanka any charge other than the all-inclusive freight, where the exporter is contractually liable to pay, subject to regulations 3(1) for the carriage of goods from the origin to destination as specified in the Bill of Lading or Forwarder's Cargo receipt.

18. Establish a regulatory body for the shipping sector

Basis a detailed planning, setting up of a regulatory body for the shipping sector should be duly considered. While the role and responsibilities could encompass various functions, it should be the nodal agency for defining regulatory framework and addressing the operational aspects of the shipping lines and the grievances raised by the shipping lines, both domestic and foreign, and the EXIM. The regulatory body should also take the responsibility to ensure that the guidelines of different ministries related to trade which might have a direct or indirect bearing on the processes or operations in the shipping sector are followed by the shipping lines as well as the EXIM community.

19. Promote the Indian shipping industry

Promote the Indian shipping sector as a strategic decision to enhance the competition between the Indian and foreign shipping lines which will create a level playing field between them and help in bringing down costs for traders.

Common digital platform – Create and bring all stakeholders on a single platform 'National Portal for Cargo Facilitation (NPCF)'

Policy Input	Implementing Authority	Implementation Timeline
Strengthening the existing digital infrastructure	Ministry of Shipping and CBEC	Short term
Develop a single common integrated online portal, **National Portal for Cargo Facilitation (NPCF)**, connecting all the stakeholders, and enabling real-time exchange of information, from booking space (export) to taking delivery (import)	Ministry of Shipping, Ministry of Finance, Ministry of Commerce & Industry along with the other associated stakeholders	Needs Further Study

Short Term

20. Strengthening the existing digital infrastructure

To address problems faced by the users while accessing/transacting on the online portal,e.g.ICEGATE and PCS,there is a need to augment/upgrade the IT hardware and software infrastructure to meet the requirements and strengthen the back-end infrastructure to handle the peak load.It is also a prerequisite to build more robust helplines supporting such portals,supporting the online portals and enhance local area connectivity and upgrade bandwidth(E.g.ICEGATE).The relevant authorities,i.e.Ministry of Shipping and CBEC should facilitate with the upgradation of the existing IT infrastructure.

Needs Further Study

21. Develop a single common integrated online portal,National Portal for Cargo Facilitation(NPCF),connecting all the stakeholders,and enabling real-time exchange of information,from booking space(export) to taking delivery(import)

To address delays, high logistics costs and operational inefficiencies, a robust common digital platform linking all the stakeholders through end-to-end trade supply chain, needs to be created which would include trading partners as well as government bodies, to exchange information, documentation and payments. Presently, the PCS exchanges limited number of messages among few stakeholders only. This EDI is mostly one way and not multidirectional. To address the cumbersome procedures that the stakeholders have to undergo by having to access multiple online portals/IT systems to transact business, which invariably results in time delays, duplication of documentation, operational inefficiencies and increased costs, there is a need to develop a single common integrated online portal i.e. **National Portal for Cargo Facilitation (NPCF)**. It would be a platform to connect all the stakeholders involved in the maritime trade and logistics enabling real-time exchange of information to conduct all the trade and logistics related functions i.e. from exchange of information to documentation and payments, in a user-friendly manner. This would facilitate 'Ease of Doing Business' in India and bring in transparency and visibility to

timelines, procedures and tariffs.

Creating a common platform that would integrate all the stakeholders and processes across all the ports in India, (i.e. major as well as minor) would be a long drawn process and a comprehensive study thus needs to be carried out pan India for the same. A joint ownership of all stakeholders in the system could ensure their active participation. Major ports around the world have such a system in place like Portbase (Port of Rotterdam), Port of Antwerp Community System and others from where India can draw inference. All the associated Ministries i.e. Ministry of Shipping, Ministry of Finance, Ministry of Commerce & Industry along with the other associated stakeholders should work in tandem for the creation of the national portal. The common digital platform should comprise some basic features like:

- Cover all trade and logistics related functionalities and applications
- Provide maximum security and confidentiality of data
- Must be sustainable with enhancements to adapt/upgrade to changing scenario
- Implement digital signatures to replace physical signatures
- Provide for 24x7 operational capabilities
- Uniform messages and standardised formats for documentation requirements
- Enable transmission to multiple parties at the same time

The following stakeholders should be on board on the proposed NPCF, but not limited to:

1. Ministry of Shipping, Ministry of Road Transport and Highways, Ministry of Railways, Ministry of Finance, Department of Commerce
2. Ports and Terminal Operators
3. State Police & Administrative Services
4. Coast Guards & Marine Authority
5. Exporters & Importers
6. Freight Forwarders & Custom House Brokers, Consolidators, MTOs
7. Rail carriers: Indian Railways, CONCOR, Private Train Operators
8. Trailer and Truck Operators
9. Coastal shipping & Inland Waterways
10. CFS, ICD, Warehouse Operators, Free Zone Companies
11. Empty Container Depots & Container Inspection Agencies
12. Shipping Lines & Agents
13. Vessel Operator/Agents, NVOCCs

14. Partner Government Agencies
15. Surveyors
16. Export Credit Guarantee Corporation of India (ECGC)
17. The Reserve Bank of India
18. Financial Institutions: Designated/authorised banks, Insurance Companies
19. Industry Bodies

Enhance Customs clearance process

Policy Inputs	Implementing Authority	Implementation Timeline
The pace of growth in the RMS facilitated BoEs should be expedited across all ports	Customs department	Medium to Long Term
Adequate number of high capacity scanners to be deployed and images of scanned containers should be shared via an integrated portal with the custodian		
Extending the facility for payment of customs duty to other banks besides nominated nationalised banks		
Allowing direct entry of central excise sealed containers and self-sealing of containers should be encouraged at all ports		

Medium to Long Term

22. The pace of growth in the RMS facilitated BoEs should be expedited across all ports

While the CBEC has implemented RMS to facilitate faster clearance of cargo, the share of RMS facilitated BoEs remains very low. It is necessary to increase the share of RMS facilitated BoEs to avoid physical examination and the associated time. Such an initiative would not only reduce the dwell time of cargo but also make the clearance procedure more transparent.

23. Adequate number of high capacity scanners to be deployed and images of scanned containers should be shared via an integrated portal with the custodian

Adequate number of high capacity scanners with greater throughput to be installed at all ports. Containers should be subjected to physical examination only if any aberration is noticed. Images of scanned containers should be shared via an integrated portal with the custodian. This will reduce the instances of de-stuffing a container for physical verification that has already been scanned.

24. Extending the facility for payment of customs duty to other banks besides nominated nationalised banks

Payment of customs duty is currently available only through nominated nationalised banks. Extending the facility to other banks will aid in the ease of payment and faster clearance of goods.

25. Allowing direct entry of central excise sealed containers and self-sealing of containers should be encouraged at all ports

Movement of export containers to be streamlined by allowing direct entry of central excise sealed containers as against the current practice of repeating the customs formalities at the parking plaza. This will help in reducing the congestion levels and ensure faster movement of cargo. Self-sealing of containers should be encouraged at all ports. This coupled with initiatives such as increase in RMS facilitation, procurement of additional scanners and self-sealing of containers will help to reduce the cost spent at CFS while ensuring compliance and safety.

Promote 24x7 operations across all stakeholders

Policy Input	Implementing Authority	Implementation Timeline
Presence of PGAs 24x7 for providing regulatory clearance	Customs department and PGAs	Short Term
Availability of 24x7 Customs clearance facility	Customs department	
CFS/Warehouses operating 24x7 to expedite clearance process	Customs department	Needs Further Study
24x7 presence of shipping lines	Ministry of Shipping	

Short Term

26. Presence of PGAs 24x7 for providing regulatory clearance

PGAs providing regulatory clearances also need to be available as required for stakeholders in the maritime trade ecosystem. Approval given by allied agencies like FSSAI, ADC and WCCB is a perquisite for customs clearance. At present, many agencies like AQ and FSSAI are not able to provide 24x7 clearances as they are faced with manpower crunch. Recruiting additional staff and providing sample collection and report dispatch facility on weekends as well would speed up the customs clearance process.

27. Availability of 24x7 Customs clearance facility

At present, during non-working hours the Customs department provides clearance on a case-to-case basis. However, there is a need for increase in the number of customs officials present for clearance beyond their normal working hours including night time as required by trade (both for dock & CFS clearance). In order to enhance customs clearance process, duty payment would also have to be expedited. For this purpose, banks would also be required to facilitate duty payments 24x7 for trade.

Needs Further Study

28. CFS/Warehouses operating 24x7 to expedite clearance process

Consolidation of CFS and merging them with warehouse/storage areas has been suggested in this report for addressing the issue of congestion and reducing the logistics cost and time for trade subject to a thorough study. We have also suggested that the consolidated CFS would be required to operate and accept payments 24x7 in order to ensure smooth clearance. As it is being advocated by the Customs to increase the share of RMS facilitated BoEs further (more than 50% at present); there is a need for round-the-clock operations of CFS to provide speedy clearance.

29. 24x7 presence of shipping lines

Shipping line offices should extend their working hours, to be available round-the-clock for providing documentation and accepting payments to ensure timely clearance. Many shipping lines have a five day working week and do not operate beyond 3 p.m. The Ministry of Shipping could ensure that shipping lines are available for facilitating clearance as required. However, the mechanism to ensure and monitor round-the-clock availability of shipping lines (including foreign shipping lines) would require further study.

Periodical performance audits/monitoring of terminals & resolution of tariff disputes

Policy Input	Implementing Authority	Implementation Timeline
Introduce periodical performance audits/monitoring of terminal operations by independent 3rd parties	Ministry of Shipping	Medium to Long Term
Create a framework to resolve longstanding disputes over tariff between terminal operators and Port Trust	Ministry of Shipping	Needs Further Study

Medium to Long Term

30. Introduce periodical performance audits/monitoring of terminal operations by independent 3rd parties

Periodical performance audits/monitoring of terminal operations will ensure the availability of adequate equipment and its optimal utilisation. Effective monitoring will go a long way in reducing the opacity of terminal operations by shedding light on problems such as frequent breakdown of equipment that has often led to delays in movement of cargo. The initiative would help in estimating the potential gap which would serve as a vital tool to introduce suitable policy measures.

Needs Further Study

31. Create a framework to resolve longstanding disputes over tariff between terminal operators and Port Trust

Fallacies related to tariff fixation has led to time and cost overruns for the PPP operators. Complex and pending litigations have discouraged terminal operators from investing in new equipment and additional capacity. The Major Port Authorities Bill, 2016 proposes to create an Adjudicatory Board to enable speedy resolution of new disputes. However, a framework has to be created to dispose even the pending litigations as soon as possible.

Second Phase

Standardise trade processes across ports and stakeholders

Policy Input	Implementing Authority	Implementation Timeline
Gate-in process should be standardised across major ports. Major ports should not impose any port specific requirements for gate-in after the RFID system is implemented	Ministry of Commerce and Industry, Ministry of Shipping, Customs department, Custom House Agents Associations, FIEO, Associations of Freight Forwarders, IPPTA etc.	Medium to Long Term
Standardise trade processes across major ports and eventually extend it to other minor ports as well		Needs Further Study
The number and type of documents submitted by EXIM to the port, Customs department, CFS, terminals, PGAs and inspection agencies related to specific commodities should not vary across major ports		

Medium to Long Term

32. Gate-in process should be standardised across major ports. Major ports should not impose any port specific requirements for gate-in after the RFID system is implemented

Currently, the gate-in process varies in degrees across different major ports and no centralised common system has been agreed upon unlike the air cargo. With the implementation of RFID, the gate automation process would be functional at all the major ports which will eliminate the differences in gate entry procedures and manual documentation. It is pertinent that this is extended to minor ports as well. Besides, major ports should not impose any port specific requirements for gate-in after the gate automation process is implemented.

Needs Further Study

33. Standardise trade processes across major ports and eventually extend it to other minor ports as well

There is a need to standardise trade processes across major ports and eventually extend it to minor ports as well. Differences in procedures related to issuance of DO, obtaining custodian gate pass, number of documents required by customs at different ports for any particular commodity, mode of payment etc. affect the ease of trading to varying degree. The working hours of the shipping lines vary with most of the shipping lines not working on weekends, which delays the issuance of DO and leads to demurrage charges. The mode of payment by each stakeholder should be made online and payments should be accepted by each stakeholder on a 24x7 basis. Concerns have been raised by EXIM over delay in acknowledgement of online payments being made to the shipping lines because of which they prefer paying by demand draft. This requires deployment of additional manpower and time by importers/CHAs/freight forwarders. Such practices should be rectified to make sure those acknowledgements are received within a specified duration i.e. within a day.

34. The number and type of documents submitted by EXIM to the port, customs, CFS, terminals, PGAs and inspection agencies for any particular commodity should not vary across major ports

The number and type of documents to be submitted by EXIM to the port, Customs department, CFS, terminals, PGAs and inspection agencies for any particular commodity should not vary across major ports. Shipping lines prescribe different set of documents and varying security deposits for issuance of DO. Obtaining custodian gate pass also requires different sets of numerous documents.

Consolidate CFS, convert them into warehouses and link all with railways

Policy Input	Implementing Authority	Implementation Timeline
Make it mandatory for CFS to define the nature of services for which charges are levied	Customs department, Trade Associations and CFS	Short Term
Digitisation of data and documents maintained by CFS for transparency and policy making	Customs department	
e-invoicing and e-payments to be made mandatory for all CFS across the ports	Customs department	Medium to Long Term
Monitoring the transaction of CFS with the shipping lines through 3rd party audits to clear the notion of perceived payment of nomination fees by CFS to the shipping lines	Customs department	Needs Further Study
Setting standards for operations and conducting regular audit of the CFS so that they meet the minimum criteria for handling cargo operations	Customs department	
Consolidation of CFS and merging them with the warehouses/storage areas and making them operate on a 24x7 basis	Ministry of Finance, Customs department and CFS Associations	
Linking all Consolidated CFS (warehouses) with railways to promote faster transportation and reducing the load of traffic carried by road transport	Ministry of Finance, Ministry of Railways	

Short Term

35. Make it mandatory for CFS to define the nature of services for which charges are levied

As discussed above, all the CFSs should publish the complete details of the nature of services provided by them along with the tariff on their respective websites and the Customs department at the respective ports should ensure that the CFS follows the prescribed norms of publishing their tariff details.

36. Digitisation of data and documents maintained by CFS for transparency and policy making

The Customs department can chart out the list of data and documents maintained by the CFS that needs to be digitised and archived so that it can be easily made available if required at a later stage for policy formulation and improving processes at the CFS.

Medium to Long Term

37. e-invoicing and e-payments to be made mandatory for all CFS across the ports

e-invoicing and e-payments should be made mandatory for all CFSs across ports by the Customs department to bring in more transparency in transaction. This would also enable digitisation of data and thereby help in creating a record of databases for future reference and study.

38. Monitoring the transaction of CFS with the shipping lines through 3rd party audits to clear the notion of perceived payment of nomination fees by CFS to the shipping lines

Independent 3rd party audits of the financials of the CFS should be done at intervals deemed fit by the Customs department. This would lead to transparency in the CFS transactions.

Needs Further Study

39. Setting standards for operations and conducting regular audit of the CFS so that they meet the minimum criteria for handling cargo operations

Monitoring CFS operations, by standards devised by the Customs department, to bring down procedural delays. A mechanism to be devised to levy penalty if the CFS does not conform to the set standards or levy charges beyond what is declared/displayed beforehand. Any deviation regarding the operation parameters or the charges should be informed to the Customs department by the CFS for due permission along with necessary documentation.

40. Consolidation of CFS and merging them with the warehouses/storage areas and making them operate on a 24x7 basis

Consolidation of CFS and merging them with warehouses/storage areas can be considered after a thorough feasibility study of the operations of the CFS and the importance of their presence in various ports dealing with container trade. The Customs department and the CFS Associations should decide on the modalities of the consolidation process basis the feasibility study. The consolidated CFSs (warehouses) could be operated on a 24x7 basis and equipped with advanced infrastructure and skilled labourers. While self-sealed and factory-stuffed containers arrive at the CFS 24x7, clearance takes place only during the day. Currently, customs clearance takes place only during the customs working hours, which generally is from 10 a.m. to 6-7 p.m. As the Customs department can facilitate 24x7 clearance, with staff working on a shift basis, this will enable round-the-clock clearances of cargo as all the consolidated CFS will operate on a 24x7 basis.

41. Linking all Consolidated CFS (warehouses) with railways to promote faster transportation and reducing the load of traffic carried by road transport

Currently, all the CONCOR-operated CFSs are facilitated with railway infrastructure. Besides CONCOR-operated CFSs, only some of the CFSs, for example, three out of the 34 CFSs in JNPT (including CONCOR Dronagiri ICD) are connected with railways. In order to ease the pressure of freight traffic off roads, the consolidated CFSs can be equipped with rail infrastructure. Linking CFS with railways would be feasible once all the CFSs are consolidated. Consolidation of CFS which would operate on a 24x7 basis and evacuation of cargo via railways would help to significantly reduce the time and cost of movement of cargo to any part of India via the major ports and also help to ease out congestion in ports. The Ministry of Finance along with the Ministry of Railways after a comprehensive evaluation could ensure that the infrastructure upgradation takes place effectually.

Augment rail infrastructure & operations

Policy Inputs	Implementing Authority	Implementation Timeline
Rationalise rail freight rates	Indian Railways	Short Term
3rd party agency to manage rail cargo evacuation for terminals/Dedicated CHE for rail evacuation	Port Authority	Medium to Long Term
Deploy road-railers for cargo movement which run as a trailer on road and as a wagon on rail	Indian Railways	
Each terminal should be connected with rail infrastructure and railways need to increase the supply of rakes for service to ports	Ministry of Shipping and Railways	

Short Term

42. Rationalise rail freight rates

Higher rail freight rates in comparison to road freight rates are discouraging trade from moving cargo by rail. The higher dwell time of rail is compounding the problem. Ports should collaborate with Railways and CONCOR to rationalise freight rates, by providing minimum guaranteed volumes. Owing to the short distance slab of Railways of 50 kms (same freight levied for any length of travel of upto 50 kms), even for a short distance of say 12 kms or 20 kms, the trade ends up paying a high freight charge, as against road transport. Railways should reduce the minimum tariff slab from the present 50 kms, to encourage movement by rail for short distance.

Medium to Long Term

43. 3rd party agency to manage rail cargo evacuation for terminals/ Dedicated CHE for rail evacuation

An independent 3rd party agency should be hired by the Port Trusts to manage the rail cargo evacuation activities for the various terminals in a port. This agency will not only handle loading and unloading of cargo for the terminals, but also own the required cargo handling equipment. The cost of this service would be shared proportionately amongst the terminals. An appropriate mechanism should be put in place to ensure that this agency is carrying out unbiased operations.

As an alternative to the above suggested policy input, each terminal should have CHE dedicated exclusively for evacuation by rail. Further, to ensure that such CHE is not used for any purpose other than rail evacuation, an appropriate monitoring mechanism should be set up.

44. Deploy road-railers for cargo movement which run as a trailer on road and as a wagon on rail

To address concerns related to congestion on roads and lack of last mile connectivity, road-railers, a bi-modal transportation unit, should be deployed for cargo movement. Under this system, the cargo containers known as road-railers are brought by road on trucks from a factory/godown and directly connected with the railway wagons at the rail terminal without having to unload them. At the destination, these containers can be detached and driven away by a truck to the final destination. While test runs have been initiated, there is a need to expedite the deployment of such transportation units for moving port cargo traffic.

45. Each terminal should be connected with rail infrastructure and railways need to increase the supply of rakes for service to ports

Terminals should be provided an enabling business environment to run freight trains from their own terminals, to ensure faster cargo evacuation. This will be particularly beneficial in case of bulk cargo. This move would bring in greater competition and more options to the trade.

Insufficient rakes that connect ICDs force the trade to use road transport, thereby increasing logistics costs and increasing dwell time. Railways need to increase the supply of rakes for services to ports. There is also a critical need to improve rail connectivity of ports by increasing the number of rail lines to enable the ports to evacuate greater volumes by rail, at competitive rates.

To address concerns related to road congestion, high freight paid and environmental impact of road transport, and to optimise existing rail infrastructure, services of running double-stack container trains, which are currently restricted to only few ports namely Mundra port and Pipavav port, should be expanded across the major ports in India. With double-stack container trains, haulage charges will be more competitive vis-à-vis road transport. Recently, in July 2017, the Indian Railways announced a new freight structure for such trains (around 45 commodities have been de-notified from the notified list and included in Freight All Kind rates, which are 30% lower than the notified tariff rates), to

attract greater volumes. Double-stack container trains would enable faster evacuation of cargo in each train run, thereby easing congestion issues.

From the supply perspective, such trains would address the constraints related to inadequate availability of infrastructure. The requirement of locomotives/ wagons will be reduced as double the number of containers will be carried in one go. For the train operators, it will save time and will be cost effective, thereby encouraging them to expand services in the long term as demand for cargo evacuation by rail gathers further steam.

We believe that the above suggested policy inputs would be critical steps towards accelerating the overall objective of driving higher productivity, improving utilisation of assets and increasing overall competitiveness of the major ports, with the broader objective of improving the time taken and reducing the logistics costs of exports and imports.

Overhaul physical infrastructure & enhance productivity

Policy Inputs	Implementing Authority	Implementation Timeline
Improving utilisation of existing equipment and infrastructure	Ministry of Shipping/ Terminals	Short Term
Gate automation system to be implemented/expedited across all ports	Ministry of Shipping/ Terminal/Customs department	
Incentivise truck movement at night and direct gate-in of LEO granted cargo from ICDs	Ministry of Shipping/ Terminal/Customs department	
Installation of RFID tags on the containers and creating parking place with basic amenities near port	Ministry of Shipping	Medium to Long Term
Satellite ports should be developed near the existing major ports	Ministry of Shipping	Needs Further Study
Replace old cargo handling equipment with higher handling capacity equipment on a PPP basis	Ministry of Shipping	
Develop dedicated port corridor for cargo movement in and out of ports	Ministry of Shipping and Ministry of Road Transport and Highways	

Short Term

46. Improving utilisation of existing equipment and infrastructure

There exists a shortage and lack of efficiency of the cargo handling equipment with which the ports are operating presently. The number of cargo handling equipment, scanners as also the yard space should be increased in order to cater to the anticipated increase in cargo traffic handled to address congestion issues.

In order to improve utilisation rate of cargo handling equipment and to address the issue of inadequate availability, there is a need to mandatorily implement performance-linked incentive scheme for CHE operators. In order to understand optimal capacity utilisation rate of the CHE, further study will be required.

To address performance issues of crane and other equipment operators, measures should be taken to improve the skills of CHE operators by providing training, to optimise time and increase productivity. To solve problems related to time lost on account of shift timings and increase cargo throughput, hot seat exchange system should be implemented in order to eliminate time lost in shift changeovers.

The above suggested measures would help in improving utilisation of existing equipment and infrastructure, and creating additional capacity without any significant capital investment. Performance norms and penalties linked to performance norms are used by international ports to improve overall productivity of operations. Penalties for not complying with the productivity norms are levied by ports so as to create the right incentive/dis-incentive structure and improve performance.

47. Gate automation system to be implemented/expedited across all ports

To avoid manual record keeping for gate-in, and in order to address the issue related to long time taken in manual checking of cargo at the port gate which results in long queues of trucks and high truck TAT, as also congestion inside and outside the port, Gate Automation System should be implemented across all the ports. While the automation system has been implemented in some ports, the process needs to be expedited across the ports. Also, additional customs personnel should be deployed to speed up the gate-in processes.

48. Incentivise truck movement at night and direct gate-in of LEO granted cargo from ICDs

Incentivise truck movement at night, to reduce the load on roads and reduce congestion, caused due to bulk of the cargo movement taking place during daytime. This will be subject to initialising 24x7 operations of all port stakeholders. Further, sufficient infrastructure should be developed in the parking place to accommodate the container volumes handled.

Medium to Long Term

49. Installation of RFID tags on the containers and creating parking place with basic amenities near port

The installation of RFID tags on the containers will ensure automatic entry at the port gate. The process of implementation has been initiated at the major ports; however, the same needs to be expedited.

For ports without allotted parking place inside port premises, make available parking place with basic amenities to the users.

Needs Further Study

50. Satellite ports should be developed near the existing major ports

To address infrastructure constraints related to shortage of land availability and low draft, satellite ports should be developed near the existing major ports. The government has approved setting up a satellite port project at Vadhavan near Dahanu in Maharashtra.

51. Replace old cargo handling equipment with higher handling capacity equipment on a PPP basis

Bulk of the ports suffer from inadequate availability of cargo handling equipment, or their low handling capacity, or breakdowns or stoppage of work due to using old equipment, or are prone to frequent wear and tear. Such old cargo handling equipment with low handling capacity should be replaced with higher handling capacity equipment. Cargo handling equipment should be deployed through a PPP model. Safety and security equipment should also be installed and operated on a PPP basis. Since several ports face shortage/absence of scanning machines, scanners should be installed and operated on a PPP model.

52. Develop dedicated port corridor for cargo movement in and out of ports

Dedicated port corridors to be developed for the major ports for facilitating efficient movement of cargo moving in and out of the port. The dedicated port corridor would comprise of dedicated roads and multiple parking plazas at the port premises. While the port premises will come under the authority of the Centre, the vicinity would be under State control. Development of residential buildings/encroachments should not be permitted near the dedicated corridor. The dedicated roads would be signal-free roads, dedicated exclusively for vehicles carrying cargo in and out of ports. Other vehicles (cars/two-wheelers/trucks carrying non-port cargo/passengers) should not have access to the dedicated corridor.

Rationalise documentation & paperwork

Policy Inputs	Implementing Authority	Implementation Timeline
Physical copies of Arrival Notice and OOC to be dispensed with at CFS	Customs department	Short Term
Standardisation of trade data submitted to the Customs	Customs department	
Physical copy of Bill of Lading for issuance of Delivery Order to be dispensed with	Ministry of Shipping, Customs department	
Centralised KYC norm to be adopted by shipping lines and repetition of documents for every shipment needs to be done away with	Ministry of Shipping, Customs department	Medium to Long Term
Simplify procedures, reduce the number of documents to the barest minimum	Customs department	Needs Further Study

Short Term

53. Physical copies of Arrival Notice and OOC to be dispensed with at CFS

Requirement of hard copies of Arrival Notice and Customs Out of Charge at CFS should be dispensed with and acceptance of soft copies of the same should be made mandatory across all CFS. In the long term, generation of OOC should be integrated with the proposed common digital platform, NPCF and customs should send the OOC directly to the custodian.

54. Standardisation of trade data submitted to the Customs department

The current practice of using different units of measurements such as pounds, kilograms, tonnes etc. and other non-standardised formats in the trade related data submitted by different stakeholders leads to amendments and delays in clearance. Standardisation of trade data submitted to the customs requires attention to prevent unnecessary amendments and the associated costs and time escalations.

55. Physical copy of Bill of Lading for issuance of Delivery Order to be dispensed with

Shipping lines should not insist on physical copy of Bill of Lading for issuance of Delivery Order in case of short hauls. Delivery Order should be issued on the same day when the documents are submitted and payments made and message to custodian should be sent without any lag.

Medium to Long Term

56. Centralised KYC norm to be adopted by shipping lines and repetition of documents for every shipment needs to be done away with

A centralised KYC norm is to be adopted by shipping lines and documents should not be insisted for every shipment. This will aid in less paperwork and eliminate the associated time.

Needs Further Study

57. Simplify procedures, reduce the number of documents to the barest minimum

It is an imperative to simplify procedures, reduce the number of documents to the barest minimum and promote coordination among all agencies/stakeholders by integrating them through the NPCF. The list of documents required by each stakeholder should be published on the NPCF to increase transparency in the system. Bringing all stakeholders under one roof will avoid multiple points of interface and promote seamless flow of documents by reducing duplication of work. Further, online payment should be made mandatory.

Timeframe for regulatory clearance

Policy Input	Implementing Authority	Implementation Timeline
PGAs should recruit more staff to enable deployment of resources for 24x7 operations as required	PGAs	Short Term
Bringing all PGAs under the ambit of single window facilitation (SWIFT)	Customs department	Medium to Long Term
PGAs should upgrade testing equipment & facilities	PGAs and	Needs Further Study
Location of PGA offices and testing facilities in the vicinity of the port	Customs department	
	Port Authority	
Development of a set of guidelines for the regulatory clearance process	Customs department	
	PGAs	
	Customs department and PGAs	

Short Term

58. PGAs should recruit more staff to enable deployment of resources for 24x7 operations as required

PGAs should recruit more staff to enable deployment of resources for 24x7 operations. Several PGAs like FSSAI, AQCS and WCCB have opined that owing to manpower crunch they are unable to provide 24x7 clearance facilities. As the Customs department has mandated round-the-clock clearance facility under "Ease of Doing Business" initiatives, presence of PGAs concomitantly will ensure there are no delays in obtaining regulatory clearance/NOC due to this. Recruiting more staff will also permit better workload management.

Medium to Long Term

59. Bringing all PGAs under the ambit of single window facilitation (SWIFT)

All the PGAs should be brought under the ambit of single window facilitation. There are 19 allied agencies providing clearance for Indian maritime trade. However, presently only six of these agencies are present on SWIFT. Presence of all agencies on SWIFT will streamline the documentation requirements from trade for obtaining regulatory clearance. The Customs department could integrate more agencies on SWIFT both for imports and exports for facilitating trade.

Needs Further Study

60. PGAs should upgrade testing equipment & facilities

PGAs should upgrade testing equipment and facilities especially where the maximum BoEs are received. Procuring better testing equipment and advancement of testing methods will reduce the dwell time of PGAs thereby having a positive impact on time and cost implications for trade. In this regard, a detailed study needs to be carried out to determine the need to upgrade the infrastructure and equipment of PGAs depending on the current trade volumes and future growth potential for any particular port.

61. Location of PGA offices and testing facilities in the vicinity of the port

The location of PGA offices and testing facilities in the vicinity of ports could significantly reduce the time taken for sample collection, testing and delivering the test report. Timely delivery of test reports/NOC would subsequently bring down the time taken in customs clearance. The agencies that provide clearance for majority of BoEs for a particular port, should be allocated land within the port premises. Further, location of testing facilities/ laboratories of relevant PGAs should be made closer to ports. Accreditation of more private laboratories which meet the relevant requirements would increase availability of labs for testing. Determining the location of the required PGAs within or nearby the port vicinity would require a comprehensive study of the demand for the same.

62. Development of a set of guidelines for the regulatory clearance process

These guidelines could encompass all stages of the process from sample collection & dispatch, time frame for testing to report delivery. Such guidelines could be established after a consensus between the Customs department and the PGAs. Guiding principles could be set up commodity- wise in consultation with PGAs and after determining the ideal timeline for testing processes for different type of commodities. This would assist trade by providing them with certainty regarding the timelines for regulatory clearance.

dun & bradstreet

Dun & Bradstreet Study: Port Logistics Issues and Challenges in India

Survey Questionnaire for Port Index

For the purpose of the Survey, information is to be provided for the calendar year January-December 2016. Port Logistics means from berthing to port gate.

A. Basic Information

1. **Name** _____ **Email ID**_____
2. **Name of your Company** _____ **Designation** _____
3. **Size of your company:**

   a) **Employee size as per latest financial year**: (Number of Employees)

Up to 50	51-100	101-250	251-500	500-1,000	Above 1,000
○	○	○	○	○	○

   b) **Annual Turnover as per latest financial year**: (In ₹ Crore)

Up to ₹ 10 cr	₹ 10-100 cr	₹ 100-500 cr	₹ 500 -1,000 cr	Above ₹ 1,000 cr
○	○	○	○	○

4. **Mention your Line of work**

Exporter	☐	**Customs House Agents**	☐
Importer	☐	**Freight Forwarders**	☐
Exporter and importer	☐	**Others, Please specify**	

5. **Ports that you operate from and their share in the value of goods traded**

Name of the Port	% of trade by value (in a year)	Name of the Port	% of trade by value (in a year)
Kandla Port		Kamarajar Port	
Mumbai Port		Chennai Port	
JNPT		Visakhapatnam Port	
Mormugao Port		Paradip Port	
New Mangalore Port		Haldia Dock Complex	
Cochin Port		Kolkata Dock System	
V.O. Chidambarnar Port		Mundra Port	

Any other (Please specify and mention the % share): _____

B. Questionnaire

Important Instruction: ***While answering the questions please consider only one port through which you carry out maximum trade by value (Jan - Dec 2016)***

1. Perception Based Questions

1. **Port infrastructure - Based on your experience at the port, rate the overall quality of the port infrastructure with respect to the following parameters** on a scale of 1 to 7 where 1 - Very Poor and 7 - Excellent

	1	2	3	4	5	6	7
Berthing	○	○	○	○	○	○	○
Cargo handling equipment	○	○	○	○	○	○	○
Safety and security equipment at the port	○	○	○	○	○	○	○
Warehouse/Storage	○	○	○	○	○	○	○
Scanning facilities	○	○	○	○	○	○	○
Testing facilities & laboratories	○	○	○	○	○	○	○
Quality of IT infrastructure	○	○	○	○	○	○	○

Any other (Please specify and rate): _____

Berthing *– Bringing a vessel to her berth until the ship is made fast. Indicates adequacy of number of berths and suitable infrastructure such as draft, length of quay, tug crafts and mooring boats to berth ships of all length and size*

Cargo handling equipment *– Adequacy of equipment; e.g. number of mobile cranes, wharf/quay cranes, gantry cranes, fork & top lift trucks, ship loaders/unloaders, etc.*

Safety and security equipment at the port *– Observance of the safety guidelines for port users issued by the port trusts/authorities; availability of safety and security equipment; adequacy of CCTV cameras, fire extinguishers, first-aid facilities, number of security personnel, etc.*

Warehouse/Storage *– Adequate area and capacity to store all kinds of cargo and provision of security for cargo*

Scanning facilities *– Adequate number of scanners at the ports for cargo clearance*

Testing facilities & laboratories *– Adequate number of testing laboratories/facilities and equipment; number of technical personnel*

Quality of IT infrastructure *– Seamless availability and quality of connectivity including Port Community System (PCS), ICEGATE, etc.*

2. **<u>Quality of Operation</u> - Rate the quality of service provided at the port through which you carry out maximum trade (by value in a year),** on a scale of 1 to 7, where 1- Very dissatisfied and 7 – Very satisfied

	1	2	3	4	5	6	7
Loading / Unloading / Transloading	○	○	○	○	○	○	○
Container Freight Stations	○	○	○	○	○	○	○
Warehouse/Storage	○	○	○	○	○	○	○
Customs	○	○	○	○	○	○	○
Quality/Standard inspection	○	○	○	○	○	○	○
Transport related	○	○	○	○	○	○	○
Level of integration/Co-ordination of various services/agencies	○	○	○	○	○	○	○

Any other (Please specify and rate): _____

Loading/Unloading/Transloading *– Working condition of cargo handling equipment and daughter/feeder vessels; efficiency and productivity (in terms of timeliness and wastage of cargo) of all the stakeholders (including labour) involved in the process of Loading/Unloading/Transloading*

Container Freight Stations *– The overall process flow of operations at CFS which include safety/security of cargo, working condition (age and cargo lifting capacity) of cargo handling equipment, scanning facilities (time taken & depth of penetration), reefer plug points, facility maintenance services, cargo tracking & tracing facilities, transportation facilities (availability of trailers and drivers), working hours of CFS; Efficiency (timeliness, wastage of cargo) of services provided by labour (shifting/stacking/loading/unloading/ stuffing/de-stuffing/aggregation/segregation), etc.*

Warehouse/Storage *– Safety/security of cargo, working condition (age and cargo lifting capacity) of cargo handling equipment, reefer plug points, facility maintenance services, cargo tracking & tracing facilities, transportation facilities (availability of trailers and drivers), efficiency (timeliness, wastage of cargo) of services provided by labour, ease of entry and exit, etc.*

Customs *– The overall process of the customs department which includes competency of customs officials; working hours of customs officials; speed, simplicity and predictability of customs formalities/ procedures; ease of documentation/paperwork (number and types of documents, online submission of documents, online payment, etc.), transparency in clearance procedures and charges levied, etc.*

Quality/Standard inspection *– Qualification and technical expertise of inspection personnel; certificate issuance process (manual or digital); number and quality of testing equipment; documentation and inspection process; timeliness in obtaining test reports, etc.*

Transport related *– Efficiency and productivity of trucks & trailers and drivers; ease of availability of trucks/trailers; frequency of rail services; handling capacity of vehicles and rakes; labour issues (strike); tracking & tracing facility, etc.*

Level of integration/Co-ordination of various services/agencies *– Timely and effective communication among various port stakeholders (e.g. terminals, customs, inspection agencies/participating government agencies, etc.) to facilitate faster evacuation of cargo*

3. **Rate the quality of service provided by the following personnel on a scale of 1 to 7, where 1 - Very dissatisfied and 7 - Very satisfied**

	1	2	3	4	5	6	7
Port staff	○	○	○	○	○	○	○
Customs staff	○	○	○	○	○	○	○
CFS/Warehouse staff	○	○	○	○	○	○	○

Port staff *– Skill sets of labourers (dock-side and shore-side) in effectively handling cargo (time taken, care taken, and minimal wastage); unionism/labour issues, availability (number) of labour*

Customs staff *– Availability (number) and competency of customs officials*

CFS/Warehouse staff *– Availability (number) and competency of CFS staff*

4. **Based on your experience, rate the level of ease or difficulty at the port through which you carry out maximum trade (by value in a year)** on a scale of 1 to 7, where 1- Very difficult and 7 – Very easy

	1	2	3	4	5	6	7
Tracing & tracking your consignment	○	○	○	○	○	○	○

Tracking & Tracing of your consignment refers to tracking of the consignment inside the port

5. **<u>Timeliness</u> - With regard to the following activities, please state the timeliness at the port through which you carry out maximum trade (by value in a year)** on a scale of 1 to 7, where 1- Very dissatisfied and 7 – Very satisfied

	1	2	3	4	5	6	7
Time taken at the terminal	○	○	○	○	○	○	○
Time taken from terminal to CFS/Warehouse Or CFS/Warehouse to terminal	○	○	○	○	○	○	○
Time taken at CFS/Warehouse/Storage including customs clearance	○	○	○	○	○	○	○
Time taken for customs clearance	○	○	○	○	○	○	○

Any other (Please specify and rate) : _____

Time taken at the terminal *– The total timeliness in unloading of goods/container from ships at the terminal to the evacuation of goods from the terminal gate and from arrival of the goods/container at terminal to loading on ship << for exports and imports process>>*

Time taken from terminal to CFS/Warehouse (Import) and from CFS/Warehouse to terminal (Export) *– Time taken to carry the goods (this will include congestion, if any; adequacy of transport vehicle & drivers)*

In case of evacuation for bulk goods via railways: time taken to evacuate the goods from the terminal via railways, considering the availability of rakes and adequate number of rail sidings and vice versa for exports

Time taken at CFS/Warehouse/Storage including customs clearance *– Time taken for procedures such as stuffing/de-stuffing of cargo, aggregation/segregation of cargo, stacking and sorting; facilities for examination of goods, etc.*

Time taken for customs clearance *– Time taken by customs department/official for different activities such as processing of bill of entry (import) and shipping bill (export), inspection/ examination of goods, assessment of duty, clearance of documents, 'out of charge' given by the Customs Officer, Let export order (LEO) etc.*

6. **Efficiency of the <u>Clearance Process</u> - Based on your experience, rate the level of efficiency at the port through which you carry out maximum trade (by value in a year),** on a scale of 1 to 7, where 1 - Very poor and 7 – Excellent

	1	2	3	4	5	6	7
Customs clearance procedure	○	○	○	○	○	○	○
Regulatory clearance procedure (Including testing labs)	○	○	○	○	○	○	○

Any other (Please specify and rate): _____

Customs clearance procedure *– Speed, simplicity and predictability of customs procedures or process; competency and presence of adequate number and availability of the officials; usage of IT platform, etc.*

Regulatory clearance procedure (Including testing labs) *– Timeliness of test reports, certificate issuance process (manual or digital), competency of the inspection officers and procedural hurdles, if any, of the quality inspection agencies and health/SPS (Sanitary and Phyto- Sanitary) agencies, etc.*

7. **<u>Transaction cost</u> - Based on your experience on the charges paid by you at the port through which you carry out maximum trade (by value in a year)**, on a scale of 1 to 7, where 1 - Very dissatisfied and 7 – Very satisfied

	1	2	3	4	5	6	7
Shipping Line charges	○	○	○	○	○	○	○
CFS/Warehouse charges	○	○	○	○	○	○	○
Customs & documentation (including penalties & other charges)	○	○	○	○	○	○	○
Detention charges	○	○	○	○	○	○	○
Demurrage charges	○	○	○	○	○	○	○
Miscellaneous charges	○	○	○	○	○	○	○

Any other (Please specify and rate): _____

Shipping Line charges *– The overall charges paid to shipping lines including but not limited to: Regular charges and charges other than pre-defined/agreed charges: Terminal handling charges, facilitation processing fees, documentation fees, off-doc charge; cleaning & washing charges, endorsement charge, manifest fee, value added surcharge, seal value, winter season surcharge, survey charges, cost recovery charges, late D.O. charge, de-stuffed delivery charges, change of destination charges, warehouse special charges, etc.*

CFS/Warehouse charges *– Charges paid to CFS/Warehouse including but not limited to: Regular charges and charges other than pre-defined/agreed charges: handling & transportation, warehouse charges, housekeeping charges, line de-stuffing charges, cargo storage charges, forklift charges, crane & special equipment charges, administrative surcharge, documentation charges, facilitation charges, lift on/lift off, energy surcharge, fuel surcharge, ground rent, seal cutting charges, monitoring and security charge, internal shifting at port charges, container tracking charges, port congestion charges, auction processing charges, scanning charges, etc.*

Customs and Documentation *– Charges paid towards customs clearance and documentation, including penalties and other charges*

Detention charges *– Detention charges are paid to the Shipping Line. It is calculated for each additional day after expiry of the free period*

For Exports – Detention is charged when an exporter exceeds the allotted free time to pick up an empty container and return it after stuffing/packing

For Imports – Detention is charged when the container is held outside the port/terminal premises after the expiry of the allotted free days. (Please note that detention is charged even if empty containers are not returned within the free days)

Demurrage charges *– Demurrage charges, also known as storage charges/ground rent, are paid to the custodian of the goods (could be shipping line or the terminal or CFS)*

For Exports – Demurrage is charged from the time of cargo delivery to the port till the start of free period

For Imports – Demurrage is charged when import cargo is discharged from the ship but not claimed by the consignee after the expiry of the allotted free period

Miscellaneous charges *– Sundry charges paid towards facilitation of the transaction such as informal payments, etc.*

2. OUTCOME BASED QUESTIONS

8. **Time related - Based on your experience please tell us the average time taken (in hours), at the port through which you carry out maximum trade (by value in a year).***
   **Mandatory Question*

For Imports

Average time to import	Hours
Time taken at terminal	
Time from terminal to CFS/Warehouse	
Time taken at CFS/Warehouse	
Time taken for customs clearance	
Certification procedures other than customs	
Documentation at port	

For Exports

Average time to export	Hours
Documentation at port	
Certification procedures other than customs	
Time taken for customs clearance	
Time taken at CFS/Warehouse	
Time from CFS/Warehouse to terminal	
Time taken at terminal	

Any Other (Please Specify): _____

Time taken at the terminal *– The total timeliness in unloading of goods/container from ships at the terminal to the evacuation of goods from the terminal gate and from arrival of the goods/container at terminal to loading on ship << for exports and imports process>>*

In case of evacuation of bulk goods via railways consider the time taken for discharge of goods/container from the ship and departure of train from terminal for imports and vice versa for exports

Time taken from terminal to CFS/Warehouse (Import) and from CFS/Warehouse to terminal (Export) *– Time taken to carry the goods (this will include congestion, if any; adequacy of transport vehicle & drivers)*

Time taken at CFS/Warehouse and for customs clearance *– Time taken for procedures such as stuffing/de-stuffing of cargo, aggregation/segregation of cargo, stacking and sorting; time taken by customs department/official for different activities such as processing of bill of entry (import) and shipping bill (export), inspection/examination of goods, assessment of duty, clearance of documents, 'out of charge' given by the customs officer, Let export order (LEO) etc.*

Certification procedures other than customs *– Time taken in completion of certification procedures other than customs such as obtaining technical certificate clearance, permits & licenses, sanitary & phytosanitary certificate, certificate of origin, etc.*

Documentation at port *– Documentation related time taken for Invoice, Packing list, Gate pass, Form 13, Certificate of origin, Shipping Bill, Bill of Lading, etc.*

9. (a) **Port Logistics Cost: Definition:** *Port Logistics Cost is the total cost incurred towards shipping line, CFS/ Warehouse, customs and documentation, detention & demurrage and any other miscellaneous charges including informal payments for exporting/importing goods/container*

Please mention your Port Logistics Cost as % of total value of goods exported/imported at the port through which you carry out maximum trade by value in a year _____%.*
** Mandatory Question*

9 (b) **For Port Logistics Cost, as defined in the previous question, please provide a break-up of the following charges as a share of total Port Logistics Cost:**

**for container trade, please mention the charges as % of charges per container*

	Share in Port Logistics Cost (%)
Shipping Line charges	
CFS/Warehouse charges	
Customs & Documentation (including penalties & other charges)	
Detention charges	
Demurrage charges	
Miscellaneous charges/Any other charges	

Any other (Please Specify): _____

Shipping Line charges *– The overall charges paid to shipping lines including but not limited to: Regular charges and charges other than pre-defined/agreed charges: Terminal handling charges, facilitation processing fees, documentation fees, off-doc charge; cleaning & washing charges, endorsement charge, manifest fee, value added surcharge, seal value, winter season surcharge, survey charges, cost recovery charges, late D.O. charge, de-stuffed delivery charges, change of destination charges, warehouse special charges, etc.*

CFS/Warehouse charge *– Charges paid to CFS/Warehouse including but not limited to: Regular charges and charges other than pre-defined/agreed charges: handling & transportation, warehouse charges, housekeeping charges, line de-stuffing charges, cargo storage charges, forklift charges, crane & special equipment charges, administrative surcharge, documentation charges, facilitation charges, lift on/lift off, energy surcharge, fuel surcharge, ground rent, seal cutting charges, monitoring and security charge, internal shifting at port charges, container tracking charges, port congestion charges, auction processing charges, scanning charges, etc.*

Customs and Documentation (including penalties & other charges) *– Charges paid towards customs clearance and documentation, including penalties and other charges*

Detention charges *– Detention charges are paid to the Shipping Line. It is calculated for each additional day after expiry of the free period*

For Exports – Detention is charged when an exporter exceeds the allotted free time to pick up an empty container and return it after stuffing/packing

For Imports – Detention is charged when the container is held outside the port/terminal premises after the expiry of the allotted free days. (Please note that detention is charged even if empty containers are not returned within the free days)

Demurrage charges *– Demurrage charges, also known as storage charges/ground rent, are paid to the custodian of the goods (could be shipping line or the terminal or CFS)*

For Exports – Demurrage is charged from the time of cargo delivery to the port till the start of free period

For Imports – Demurrage is charged when import cargo is discharged from the ship but not claimed by the consignee after the expiry of the allotted free period

Miscellaneous charges/Any other charges *– Sundry charges paid towards facilitation of the transaction such as informal payments*

10 (a) On an average in a year, what is the frequency of detention charges paid?

0-20%	21-40%	41-60%	61-80%	81-100%
○	○	○	○	○

Frequency of detention charges paid indicates the number of times in a year when such charges are paid, out of the total number of times trade is conducted through the port

10 (b) What is the average length of detention per consignment at the port through which you carry out maximum trade by value in a year?

Upto 1 day	1-3 days	4-6 days	7-9 days	Above 9 days
○	○	○	○	○

Average length of detention per consignment indicates the time duration (number of days) for which detention is levied

10 (c) What are the likely causes of detention at the port through which you carry out maximum trade (by value in a year)?

Port congestion	☐	Labour issues	☐
Delays in customs clearance	☐	Customs brokers	☐
Delays in regulatory clearance	☐	Inadequate availability of equipment at the port	☐
Documentation/Paperwork	☐	Power failure	☐
Damaged containers	☐	Equipment failure	☐
Overweight containers	☐	Unfavorable weather conditions/Natural calamities	☐
Cargo detention at the port (e.g. due to delay in payment)	☐	Insufficient number of Free Days	☐

Any other (Please specify): _____

11 (a) On an average in a year, what is the frequency of demurrage charges paid?

0-20%	21-40%	41-60%	61-80%	81-100%
○	○	○	○	○

Frequency of demurrage charges paid indicates the number of times in a year when such charges are paid, out of the total number of times trade is conducted through the port

11 (b) What is the average length of demurrage per consignment at the port through which you carry out maximum trade by value in a year?

Up to 1 day	1-3 days	4-6 days	7-9 days	Above 9 days
○	○	○	○	○

Average length of demurrage per consignment indicates the time duration (number of days) for which demurrage is levied

11 (c) What are the likely causes of demurrage at the port through which you carry out maximum trade (by value in a year)?

Port congestion	☐	Labour issues	☐
Delays in customs clearance	☐	Customs brokers	☐
Delays in regulatory clearance	☐	Inadequate availability of equipment at the port	☐
Documentation/Paperwork	☐	Power failure	☐
Damaged containers	☐	Equipment failure	☐
Overweight containers	☐	Unfavorable weather conditions/Natural calamities	☐
Cargo detention at the port (e.g. due to delay in payment)	☐	Insufficient number of Free Days	☐

Any other (Please specify): _____

12. State the category of goods exported/imported

Category	Tick as appropriate	Whether FCL (Percentage Share)	Whether LCL (Percentage Share)
Dry Bulk	☐		
Break Bulk	☐		
Container	☐		
Others, please specify			

FCL=Full Container Load LCL=Less than Container Load

13. Please provide details of the top 5 commodities exported/imported (by value)

Name of the Top commodities	% share in overall trade	Exports: Top 3 countries & % share	Imports: Top 3 countries & % share	ITC-HS Code (Up to 6 digits)
1				
2				
3				
4				
5				

14. Could you please share the revenue size of your clients? Please give us a range from minimum to maximum _____.

15. Please list down the major issues and challenges (i.e. Infrastructure, Operations and Connectivity) that you face at the port through which you carry out maximum trade.* Please mention and elaborate 5-10 challenges

Challenges	Challenges
1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

** Mandatory question*

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The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

අංක 1842/16 - 2013 දෙසැම්බර් මස 27 වැනි සිකුරාදා - 2013.12.27

No. 1842/16 - FRIDAY, DECEMBER 27, 2013

(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

THE LICENSING OF SHIPPING AGENTS, FREIGHT FORWARDERS, NON-VESSEL OPERATING COMMON CARRIERS AND CONTAINER OPERATORS ACT, No. 10 OF 1972

REGULATIONS made by the President under Section 10 of the Licensing of Shipping Agents, Freight Forwarders, Non-Vessel Operating Common Carriers and Container Operators Act, No. 10 of 1972 read with Article 44(2) of the Constitution of the Democratic Socialist Republic of Sri Lanka

MAHINDA RAJAPAKSA,
President.

Colombo,
26th December, 2013.

Regulations

1. These regulations may be cited as the Shipping Agents, Freight Forwarders, Non-Vessel Operating Common Carrier and Container Operators regulations 2013 and shall come into operation with effect from January 6, 2014.

2. (1) Every licensed Shipping Agent, Freight Forwarder, Non-Vessel Operating Common Carrier and Container Operator (hereinafter referred to as the "licensed service provider") who carries on the business of a shipping agent, a freight forwarder, a non-vessel operating common carrier, a container operator or a consolidator of cargo shall issue a clean bill of lading which specifies the consignment of goods as a "Pre-Paid Freight" or "Freight Collect".

(2) No Bill of Lading shall specify the consignment of goods as "Zero Freight".

3. (1) All charges on containerized cargo which cover entire cost of the carriage of goods referred to in the transport document from the origin to destination, shall be included in the all-inclusive freight specified in the Bill of Lading which shall be recovered only from the party who is contractually bound to pay the same.

(2) The "all inclusive freight" referred to in Sub-sectin (1) shall necessarily include :

(*a*) Charges on full container load ;

(*b*) Terminal handling charges ;

(*c*) Charges for the issuance of bill of lading or forwarders cargo receipt ;

(*d*) Charges on less than container load cargo (if applicable).

(3) For the purposes of these regulations "origin to destination" in relation to the carriage of containerized cargo means the carriage of goods from -

(*a*) container yard to contianer yard ; or

(*b*) container freight station to container freight station ; or

(*c*) container yard to container freight station ; or

(*d*) container freight station to container yard.

4. No licensed service provider shall charge from an importer in Sri Lanka, any charge other than the all-inclusive freight, where the importer is contractually liable to pay, subject to regulation 3(1) for the carriage of goods from the origin to destination as specified in the Bill of Lading ;

Provided however, any licensed service provider may charge a delivery order fee from the importer which shall be payable in Sri Lankan Rupees.

5. (1) Where a delivery order fee is being charged by a licensed service provider, the amount of delivery order fee so charged shall be informed to the Director of Merchant Shipping (hereinafter referred to as the "Director") by such licensed service provider, for purposes of record.

(2) If any licensed service provider intends to increase the amount of delivery order fee, an application in that behalf shall be made to the Director together with the documentary evidence supporting such increase.

(3) The Director may -

(*a*) accept the proposed increase of delivery order fee upon verification of supporting documents ; or

(*b*) reject the proposed revision of delivery order fee ; or

(*c*) propose an alternative increase of the delivery order fee which he deems reasonable, after persual and where deemed necessary having made inquiry.

(4) The decision of the Director shall be communicated to the relevant licensed service provider within forty-five (45) working days from the date of receipt of the application referred to in paragraph (2), with reasons for such decision which shall be binding on such licensed service provider.

6. No licensed service provider shall charge from an exporter in Sri Lanka, any charge other than the all-inclusive freight, where the exporter is contractually liable to pay, subject to regulations 3(1) for the carriage of goods from the origin to destination as specified in the Bill of Lading or Forwarder's Cargo Receipt.

7. (1) Any structure of charges levied by a licensed service provider in accordance with any existing contractual obligation entered prior to the date of operation of these regulations and binding on such licensed service provider which is contrary to the structure of charges on containerized cargo referred to in these regulations may be implemented until the date on which such contract expires or until April 30, 2014 which ever date is the earlier.

(2) A copy of the contract referred to in paragraph (1) shall be filed with the Director by the licensed service provider, within two (2) weeks from the date of these regulations.

(3) Any such existing contract which is operative beyond April 30, 2014 which contains a structure of charges contrary to the charges on containerized cargo referred to in regulation 3, shall be revised to ensure complinace with these regulations.

(4) Any such existing contract not so revised shall be deemed to be null and void to the extent of the application of these regulations, with effect from April 30, 2014.

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Regd. Office - ICC Chambers, Saki Vihar Road, Powai, Mumbai - 400 072. CIN : U74140MH1997PTC107813
Tel: +91 22 6676 5555, 2857 4190 / 92 / 94 Fax: +91 22 2857 2060

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