Study on Timeline for Export and Import of Containers at Jawaharlal Nehru Port Trust, Chennai Port Trust and APSEZ Mundra

October 2018

Highlights of the October Report

- As compared to September 2018, port dwell time for imports at JNP decreased from 49:15 to 43:21 hours in October 2018. ICD bound containers at JNP has recorded its lowest Dwell time for imports i.e., 58:10 hours for the year 2018.
- As compared to September 2018, port dwell time for imports at Chennai decreased from 50:20 to 44:07 hours in October 2018.
- The port dwell time for exports decreased at Chennai from 63:35 to 59:38 hours. 59:38 hours is the lowest time recorded at Chennai for the year 2018.
- CFS export dwell time increased at JNP from 115:59 to 137:07 hours.
- JNP and Chennai CFS import dwell time decreased from 127:21 to 121:33 hours, 119:20 to 73:03 hours respectively.
- ICD TKD import dwell time increased in the month of October from 157:24 to 160:54 hours.
- "Rake turnaround time" increased at Chennai port from 19:06 to 22:03 hours.
- In October 2018, JNP-TKD rail transit time for imports increased from 59:19 to 73:57 hours.
- In October 2018, Mundra-TKD rail transit time for import and export increased from 78:36 to 102:40 hours and 70:50 to 93:32 hours respectively.
- In October 2018, JNP-CFS road transit time for imports is 9:19 on the other hand road transit time for exports is 21:08 hours.

Contents

1. Introduction

On 31st October 2018, the World Bank released the sixteenth edition of its report, Ease of Doing Business 2019: Training for Reform[1], covering the performance of 190 economies in various parameters. India has witnessed a massive jump in its overall ranking, and particularly, in the 'trading across borders' parameter. For the second consecutive year, and with 13 reforms to account for, India is among the top 10 improvers in the latest report.

Table 1: India's Ease of Doing Business Ranking

Parameter/Reporting Year*	2014	2015	2016	2017	2018
Overall ranking	134	131	130	100	77
Trading Across Borders	126	144	143	146	80

**Please note that reporting year is different than the report year (mentioned in the report title); it covers the year of study*

India's overall rank has improved by 23 places; from 100 in the previous year to 77 in the Ease of Doing Business Report (EoDB) index, as per The World Bank Group's Doing Business 2019 report. Getting electricity, dealing with construction permits and trading across borders are the three main areas of improvement, as per the report. 'Trading Across Borders' (TAB) is a parameter wherein the time and cost required to release the cargo from the customs port in Delhi and Mumbai is captured through a questionnaire which relies on the perception of the traders and trading agents. Here, India's position has slipped by improved by 66 places, currently at 80 out of 190 economies (Table 1).

In TAB, India took several initiatives under the umbrella of the National Trade Facilitation Action Plan 2017-2020 to streamline trade, business process and reduce time and cost of trade. Some of the notable initiatives include, introduction of electronic sealing of containers by the exporters in their own facility, only 5 per cent shipments undergoing physical inspection in an enhanced risk-based management, strengthening management and port infrastructure, and electronic document flow (initiation of e-SANCHIT and making e-Delivery Order mandatory).

The Doing Business report captures the time and cost of trade for border compliance and documentary compliance in the EXIM supply chain. Table 2 captures the change in time and cost of doing trade over the last four years.

Table 2: World Bank's Estimate of Trading Across Borders through Mumbai

Parameter	Export				Import			
	Documentary Compliance		Border Compliance		Documentary Compliance		Border Compliance	
Reporting Year	Time (hr)	Cost (USD)	Time (hr)	Cost (USD)	Time (hr)	Cost (USD)	Time (hr)	Cost (USD)
2015	61		88		67		311	
2016	58		85		65		307	
2017	58		85		65		267	
2018	24	75	54	250	35	100	102	340

Source: www.doingbusiness.org

[1] The study period of this report is 2nd June 2017 – 1st May 2018. The report can be accessed at http://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf

1.1. Context of the study

In 2016-17, a study was undertaken by Federation of Indian Export organisations (FIEO) and Bureau of Research on Industry and Economic Fundamentals (BRIEF), which was commissioned by NITI Aayog, for a comprehensive dwell time analysis of the various procedures and agencies involved in the supply chain for export and import through the JNP. It involved an assessment of the time taken at various intervention points - dissecting the dwell time of containers from/to Container Freight Stations (CFS), Inland Container Depot (ICD) as well as Direct Port Entry/Delivery – entailing transportation of containers and other operational aspects, the process of assessment, registration and examination, among others. As a result of this study, a number of initiatives were taken at JNP including, discontinuation of use of physical copies of certain documents at the terminal, mandatory issuance of e-delivery order by shipping lines, introduction of RFID, and initiation of e-sealing facility for self-sealed containers.

In continuation with the previous study, ***Logistics Division*** in the ***Ministry of Commerce*** has entrusted FIEO and BRIEF with the mandate of carrying out the timeline analysis of various processes for different agencies at the ports. The present study has also been extended to Mundra Port and Chennai Port, in addition to the JNP for the year 2018. This study will specifically identify dwell time at various agencies in the EXIM process at the three ports, covering all aspects of border compliance and documentary compliance. This will be done through calculation of the time taken for import and export of Containers through JNP, Mundra and Chennai ports on a monthly basis along with the details of the time taken at every agency/place involved in the process.

This report also acts as a benchmarking tool for the targets for 2018-19 – for export and import – setting benchmarks for different agencies such as railways, customs, ports, and the partner government agencies. Apart from the dwell time analysis, the report also delves upon the qualitative aspects of activities in the EXIM process to provide a comprehensive picture of the operations impacting the ease of doing business in India.

1.2. Purpose and Objectives

MONTHLY REPORTS

a. To track supply chain of import/ export at JNP, Mundra and Chennai ports through identification of all the procedures, agencies and stakeholders

    - ✓ Inclusive of all formats of port entry and delivery such as Direct Port Delivery, Direct Port Entry, CFS facilitated, Factory stuffed and ICD facilitated through rail, etc.

b. To provide a comparison of processes adopted at the selected ports for EXIM trade.
c. To calculate the time taken for import and export of Containers through JNP, Mundra and Chennai ports on a monthly basis along with the details of the time taken at every agency/place involved in the process.
d. To specifically identify dwell time at various agencies in the EXIM process at the three ports. These would include, but not be restricted to, the following:

    Border Compliance

    - ✓ Customs Clearance and Inspections: Time taken by the Customs for export and import clearances at select ports based on actual data as well as perception.
    - ✓ Port Handling: Time taken by Terminal, select CFS's and select ICD's for export and import.

- ✓ Allied Agencies: Time taken by agencies such as FSSAI, PQ, etc during the course of import and export including chemical and Pharma sector.
- ✓ No. of shipments physically inspected i.e. evaluating RMS clearances based on data as well as perception.

1.3. Stakeholders

I. **Port/Terminal:** A port is the point of entry of goods and travellers into the country. It provides facilities for berthing of vessels and loading/unloading of cargo. A terminal is a part of the port, comprising of berth(s) which form a part of the terminal. It may be cargo-specific or designed to handle all types of cargo.

II. **Customs**: It is the official department of the government with the authority to check goods and travellers. In international trade, the customs collect duty on imported goods as levied by the government, and provide clearance on both export and import goods.

III. **Container Freight Station (CFS) and Inland Container Depot (ICD)**: A Container Freight Station is an extension of the port. It is the custodian of goods after they are evacuated from the terminal in case of import and before they are shifted to terminals in case of export. The process of customs clearance takes place inside the CFS. Inland Container Depots are located in different inland points away from the sea ports, offering services such as handling, temporary storage and clearance of goods.

IV. **Partner Government Agency:** Partner Government Agencies (PGAs) are external agencies allied with the Central Board of Indirect taxes and Customs (CBIC) for providing clearance to sensitive goods such as food products, dyes, animal products, drugs etc. In congruence with the Budget, 2016-17, the CBIC initiated the Single Window Interface for Facilitating Trade (SWIFT) on 1st April 2016, as part of the 'Ease of Doing Business' initiative of the central government. The SWIFT – connected with CBIC's Electronic Data Interchange (EDI) gateway – is an electronic platform that enables the importer/exporter to file a single declaration entailing the nature of goods with the customs and the PGAs, in the form of an 'Integrated Declaration'; whereas for the PGAs, the system enables these agencies to upload the reports online. The PGAs which have been integrated with SWIFT include: Food Safety and Standards Authority of India (FSSAI), Plant Quarantine Information System (PQIS), Animal Quarantine and Certification Services (AQCS), Drug Controller (CDRUG), Wild Life Crime Control Bureau (WCCB) and the Textile Committee.

V. **Railways:** Railways is one of the various modes of transporting the consignment between port and the inland destinations.

1.4. Methodology

The report records the time associated with the import and export of containers through the JNP, Chennai and Mundra ports. ***Recording of time starts when the container reaches the port till the time it is made available for the importer/CHA in case of imports, and from the time the custody of the container is handed over to ICD/CFS/port to the time the vessel sails off in case of exports.***

As a part of situational appraisal, **preliminary assessment** on parameters of border compliance, customs compliance and documentary compliance was done for all the three ports. **Business Process**

Analysis (BPA) charts were developed for Import and Export – entailing the requisite documentation and processes undertaken – as a basis for time difference calculation between different steps, also taking cognisance of any peripheral activity being undertaken, which affects the dwell time. After the BPA charts were developed, **data was collected** from stakeholders such as ports (JNP, Chennai and Mundra), ICD (ICD TKD), customs, CFS operators (CFSAI and NACFS), rake operators (CONCOR) ad partner government agencies (FSSAI, PQIS, AQCS, CDSCO, etc.). The data was collected and assembled on the basis of predetermined formats, following which, the process of **data analysis** was conducted, involving cleaning and analysis of the collected data through requisite tools. The analytical process involved stakeholder-wise calculation of dwell time and subsequently, consolidation of the same in the process chain of EXIM trade. Monthly reports are prepared post analysis of data for each month, starting January 2018. The reports summarised average timelines for analysed processes, custodians and finally, the export and import value chains as a whole.

The datasets used in the report were collected from the aforementioned stakeholders in the form of system generated date and time stamps recorded against each activity, as generated/collated by the stakeholder. From each stakeholder's datasets, dwell time was calculated on the basis of custodianship i.e. the time for which a container remained in its custody before being made available for the trader/importer/agent for delivery. For certain stakeholders, the processes are linear and therefore the time analysis was done on the basis of duration between subsequent activities. For example, in case of terminals, import dwell time was calculated as the duration between container discharge and container out time and for export, the same was calculated as the duration between container in time and container loading time. On the other hand, in case of stakeholders such as customs, where the processes are not linear, dwell time was calculated as the summation of durations for which containers were held by the customs.

The data analysed in the report was recorded against container numbers and collated on a monthly basis. Therefore, dwell time of each stakeholder is calculated, every month, as the average of container-wise time taken from the first activity till the time the consignment was made available to the trader/importer/agent for delivery under each custodian. For instance, the import dwell time of containers at a terminal was calculated as the average time taken from container discharge to container out time. However, for the calculation of dwell time for port, which includes four terminals, weighted average of all the terminals was used.

Broadly, the following parameters have been considered during analysis and report preparation:

a. The report provides the time analysis of import and export of containers through the JNP, Chennai and Mundra ports.

b. The import and export dwell time has been calculated on the basis of movement of containers, irrespective of size and commodity contained.

c. Out of the total number of containers imported and exported at a port, the sample taken considers the containers under the import and export categories only and not containers meant for transhipment. Further, only Full Container Load (FCL) containers have been considered for this study and not empties.

d. The representation of time in the tables, figures and charts used in this report has been done in the hour format i.e. *[h]:mm:ss*.

e. The total time taken by each custodian has been calculated as the time taken from the arrival of the containers under its custodianship to the release of the time when it was made available to the trader for the delivery, and not as a summation of time taken for individual processes, even if they are linear in nature (except for customs). The reason for the same is that the sample size of each process under an agency differs, and therefore aggregating the time taken for individual processes to arrive at the overall dwell time becomes infeasible.

f. While calculating the dwell time for containers, it was observed that some containers had significantly high dwell time. Since we take the average of the time taken to complete any activity in the complete process, these outliers tend to make the average skewed. In order to overcome this challenge, the calculated durations between any two activities, which were above 30 days (~720 hours), were not included in the calculation of dwell time. This has been done in order to overcome the effect of outliers (consignment that has been dwelling with a particular custodian for some reasons not related to day-to-day trade, such as unclaimed cargo, legal issues, etc.). However, the study also evaluates the percentage of such outliers. For any data set to be analysed, the percentage of outliers has to be less than 4 per cent.

For maximising accuracy, the following measures have been taken during analysis of data from various stakeholders, which have been summarised as follows:

Port

- Only Loaded containers have been taken for dwell time analysis. Empties have not been included in the analysis.
- For imports, only containers with vessel berthing time stamps in the same month as the month under analysis have been taken. For example, while analysing port data for January, only containers corresponding to vessel berthing in the month of January have been taken.
- For exports, only containers with in time in the same month as the month under analysis have been taken. For example, while analysing port data for January, only containers with in time in the month of January have been taken.

ICD Tughlakabad

- Based on the recording done in the datasets received, the segregation of containers for each month has been done by filtering the containers from the date of dispatch and departure in a particular month for export and import containers respectively. For instance, all export containers dispatched and import containers that departed from ICD Tughlakabad in the month of January 2018 have been analysed for the month of January. These container may or may not have arrival date and time in the same month i.e. January.
- Any inconsistent outliers in the datasets have not been considered for calculation.

Customs

- The monthly datasets were segregated on the basis of Out of Charge (OOC) date in case of imports and Let Export Order (LEO) date in case of exports. For instance, for the import dataset of January 2018, all the entries wherein the date of issuance of OOC is from 01-01-2018 to 31-01-2018 have been considered. Similarly, the dataset analysed for exports have all the entries for which the LEO issuance date is between 01-01-2018 and 31-01-2018.

CFS

- The monthly datasets were segregated on the basis of CFS gate out date in case of both imports and exports. For instance, the import and export datasets of January 2018 have all the entries wherein the CFS gate out date is from 01-01-2018 to 31-01-2018.

Rake Handling

- The monthly data has been segregated on the basis of the arrival date. All the entries having the arrival date in the month of January 2018 are used for analysis for the month of January

PGAs

- The monthly data has been segregated on the basis of the Application date. All the entries having the application date in the month of January 2018 have been analysed and presented in the report for the month of January.

1.5. Limitations of the Study

Despite having collected all data directly from the concerned stakeholders, there were certain un-avoidable complications that affected the precision of the average time calculated. These include:

a. *Transit time calculation between port and CFS:* Due to unavailability of the relevant timestamps with all the CFS, the average transit time for Import and export was calculated on the basis of data provided by few CFS.

b. *Missing entries in datasets:* Many entries in the datasets analysed were missing or not recorded by the agencies. Missing or wrong entries for any process under any custodian have been removed, and the 'n' (number of entries) value has been adjusted accordingly.

c. *Incomplete entries:* In many datasets, only the dates were provided for certain processes. Absence of time stamps made these entries redundant, as the time difference between two activities taking place on the same date came out to be zero. For instance, let's assume an activity A took place on 01-01-2017 at 9:00 am and a subsequent activity B took place on the same date at 8:00 pm. The duration between these two activities is 11 hours, but in case of absence of time stamps, the duration comes out to be zero, which adversely affects the average. Further, in case of the dates being different, the time difference can potentially display a skew of up to 24 hours vis-à-vis the original difference, which again posed a limitation to the analysis.

d. *Gaps in Shipping Line Delivery Order data:* Data for shipping line delivery orders (SLDO) was provided by the CFS'. However, not all CFS' could provide the said information.

e. *Missing time stamps in OOC entries:* The Out of Charge (OOC) entries in the CFS datasets did not have time stamps. As such, time difference between seal cutting (which has both date and time) and OOC taking place on the same day came out to be negative. For instance, for a seal cutting entry of 01-03-2017 at 13:56:45 and a corresponding OOC entry of 01-03-2017 only, the time taken from seal cutting to OOC would be negative.

f. *Data errors:* For some agencies, data errors were recorded. For instance, in certain entries, the gate out time recorded preceded gate in time. Further, duplication of entries was observed in the some datasets. Such entries have been removed during calculation.

g. *Calculation of DPD and DPE containers*: Calculations for both DPD and DPE categories have been done using the datasets provided by the terminals. The monthly datasets received from NSICT and NSIGT were segregated – as per mode of transport – into rail and road categories only. The containers with 'rail' as mode had to be taken as ICD and those with 'truck' as mode had to be taken as DPE (even though the category contains both CFS and factory stuffed containers). Further, in case of GTICT, the segregation – under group type – includes three categories: 'CFS', 'Factory stuffed/ICD by road' and 'ICD by rail', taken for analysis as containers originated from CFS, DPE containers and containers originated from ICD respectively. Therefore, here, ICD containers coming by road get included in DPE. In case of DPD, many containers, post clearance at the terminal, are moved to the designated CFS' for warehousing, after a time period of 48 hours as stipulated by the customs. Their destination is recorded as 'CFS' instead of 'DPD' in the datasets provided by NSICT and NSIGT. Therefore, the actual share of DPD containers are higher as compared to the analysed figures represented in this report.

h. *Unavailability of electronic data for PGAs*: During our field visits and our interactions with various stakeholders including PGA representatives, it was observed that the data (timestamps) for various activities related to clearance by PGAS are not maintained electronically by all the PGAs. The port offices of various PGAs maintain these entries manually and not all activities are recorded. Further, the entries recorded by the PGAs only contain date and no time for the commencement or completion of an activity leading to a statistical challenge where a difference of 24 hours becomes zero. In between submission of Bill of Entry and issuance of NOC by PGAs there are various activities that take place involving filing of application, scrutinising of documents, collection of samples, testing, report generation and issuance of NOC. In the absence of timestamps for all the relevant activities the clearance time for all PGAs could not be calculated.

Port Profiles

2. Port Profile

2.1. Jawaharlal Nehru Port

JNP located on the western coast is the biggest container port in the country. It handles about 56 percent of the container traffic in India through its four dedicated terminals, namely Jawaharlal Nehru Port Container Terminal (JNPCT), Gateway Terminals India Container Terminal (GTIPL), Nhava Sheva International Container Terminal (NSICT) and Nhava Sheva International Gateway Terminal (NSIGT). In addition, there is one liquid cargo berth and shallow water berth. Initially, the port was formed with the objective to reduce the traffic at Mumbai port but ever since its inception it has chronicled persistent increased performance and other achievements for India's foreign trade. The JNPT covers a land area of 2,987 hectares and has connectivity to hinterlands and the major business centres of the country through rail, road, etc.

Year-on-year Traffic:

Table 1: Container Traffic Handled at JNPT

2016-17	2017-18
4.50 million TEUs	4.83 million TEUs

Infrastructure:

Table 2: JNPT Port Infrastructure

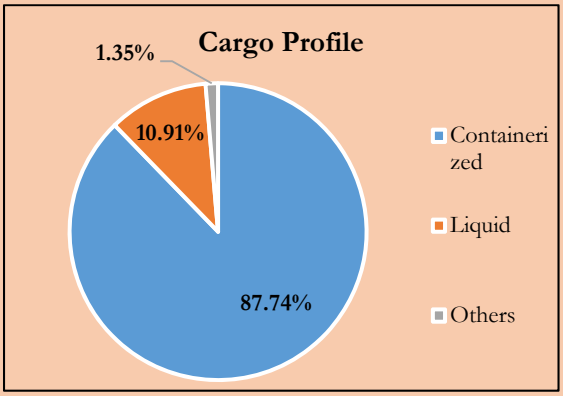
Berth	Draft (m)
12	14

Table 3: Container Capacity and Throughput at JNPT Terminals

Terminal	Capacity (TEU)	Throughput (TEU) (2017-18)
JNPCT	1,500,000	1,481,768
NSICT	800,000	641,122
NSIGT	800,000	659,400
GTICT	1,800,000	2,027,895
BMCTPL	2,400,000	23,212
Total	**7,300,000**	**4,833,397**

Cargo Profile:

In the financial year 2016-17, JNPT handled a total of 62.15 MT cargoes. The break-up of these cargoes are as under:



Cargo Handling Equipment:

Table 4: Details of Cargo Handling Equipment's

Equipment	Number
RMQCs	34
RTGCs	99
RMGCs	11

Connectivity:

Table 6: JNPT Connectivity

CFS	Rail connected ICD
34 Active Container Freight Stations	9 siding/tracks for 12 ICD

Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Liquid Tank	75,0000 MT
Warehouse Area	1,197,260 TEU
Open Area Storage	875,000 TEU

2.2. Chennai Port: Profile

Port of Chennai located on the eastern coast is among the oldest and major ports in India. Despite being the oldest port, it adopted continuous modernization and provided efficient and convenient services to withstand the competition from the existing and emerging ports. It is the first Indian port to establish the marine pollution management to ensure protection for marine life. The port covers a land area of 237.54 ha and has its own shunting yard and railway operations within the harbour. The connectivity of the port through rail, road and its container market makes it the most preferred choice in the southern region of the country.

Year-on-year Traffic:

Table 1: Container Traffic Handled at Port of Chennai

2016-17	2017-18
1.4 million TEUs	1.5 million TEUs

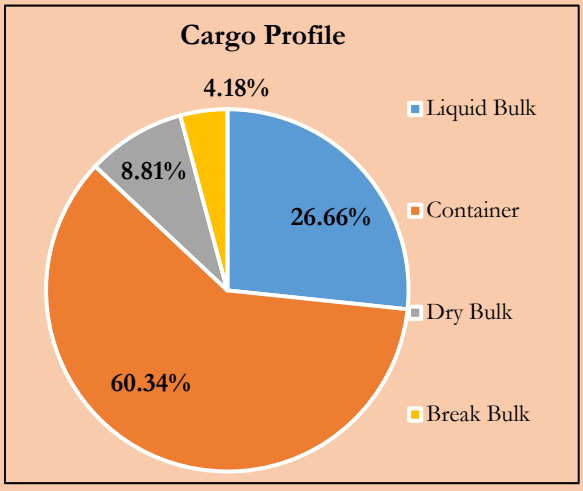
Infrastructure:

Table 2: Port Infrastructure

Berth	Draft (m)
24	15

Cargo Profile:

In the financial year 2015-16, Port of Chennai handled a total of 50.06 million tonnes of cargo:



Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Container parking Yard	2,50,600 sq. mt
Warehouse Area	30,138 sq. mt
Open Space	3,84,611 sq. mt

Table 3: Container Capacity and Throughput at Port of Chennai

Terminal	Capacity TEU	Throughput TEU (2017-18)
Chennai Container Terminal	1,200,000	646,481
Chennai International Terminal	1,250,000	901,584
Total	**24,50,000**	**15,48,065**

Cargo Handling Equipment: (2017-18)

Table 4: Details of Cargo Handling Equipment's

Equipment	Number
RMQCs	14
RTGs	40
Locomotives	7

Connectivity:

Table 6: Chennai Port Connectivity

CFS	Rail connected ICD
25 Active Container Freight Stations	2 siding/tracks for 1 ICD

2.3. Mundra Port: Profile

Adani group's Mundra port is the largest commercial port in India, located on the north-western coast in the Gulf of Kutch. The strategically thought out location of the port and different transport facilities provides favourable connectivity to the northern hinterlands of the country.Mundra Port located in Gujarat and the flagship port of APSEZ, is already one of India's biggest port by volumes handled. It was the first Indian port to handle 100 million tonnes (mt) or more of cargo in a year, a feat it achieved in FY14. The port has facilities for handling, storage and evacuation of crude oil, containers, dry bulk, break bulk, automobiles and liquid cargo. The above-mentioned and mechanized facilities at the port make it a preferred port in the region.

Year-on-year Traffic:

Table 1: Container Traffic Handled at Mundra Port

2015-16	2016-17
3 Million TEUs	3.5 Million TEUs

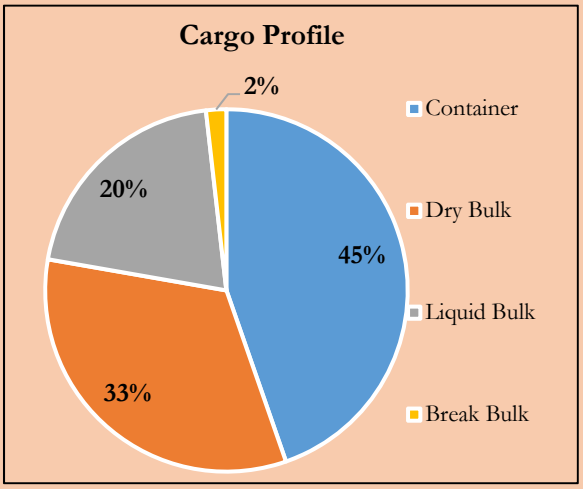
Infrastructure:

Table 2: Port Infrastructure

Berth	Draft (m)
24 berths	14 -18m

Cargo Profile:

In the financial year 2016-17, Mundra Port handled a total of 113.03 MMT of cargo



Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Covered Area	2,03,687 sq. mt
Open yards	7,57,805sq. mt

Table 3: Container Capacity and Throughput at Mundra Port

Terminal	Capacity TEU	Throughput TEU (2016-17
AMCT	1,000,000	860,000
AICT	1,750,000	1,160,000
ACCMT	800,000	276,630
MICT	1,100,000	1,163,055
Total	**46,50,000**	**34,59,685**

Cargo Handling Equipment: (2015-16)

Table 4: Details of Cargo Handling Equipment

Equipment	Number
Mobile Harbor Cranes	16
Goliath cranes	8
Reach Stacker	1
Quay Cranes	16
Rubber Tyre Gantry Cranes	50

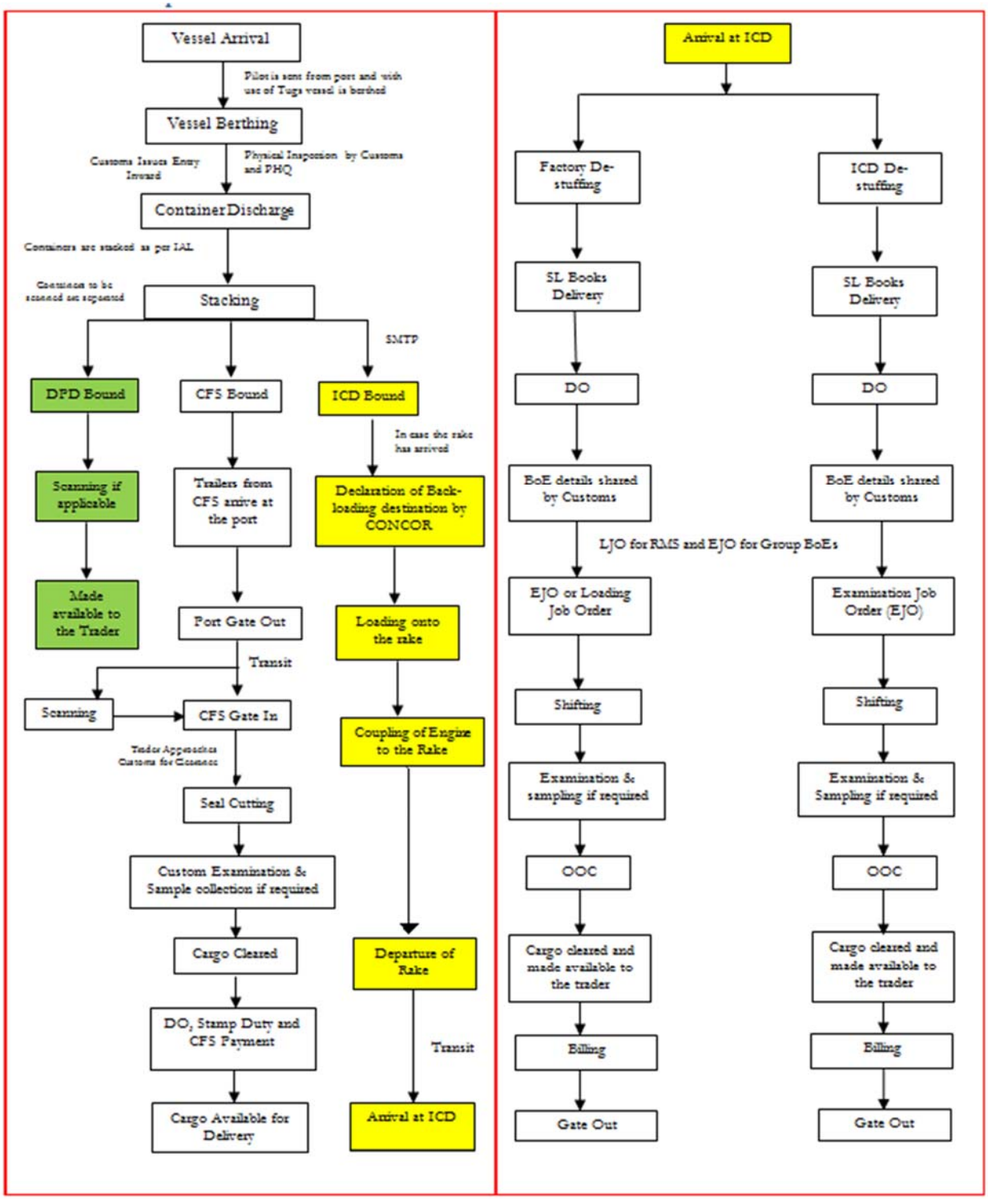
Connectivity:

Table 6: Mundra Port Connectivity

CFS	Rail connected ICD
13 Active Container Freight Stations	11 siding/tracks for 30ICDs

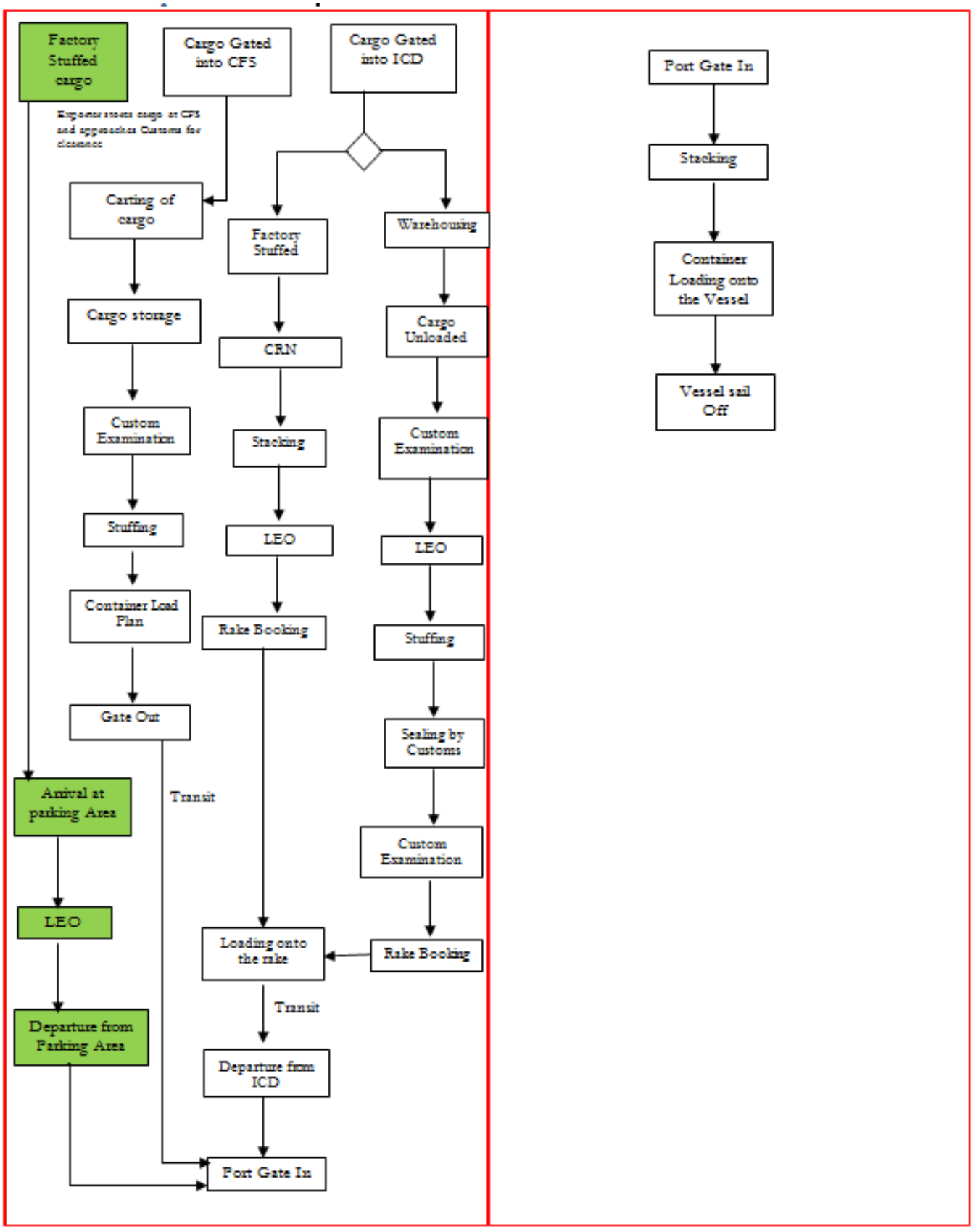
EXIM PROCESS

3. Import Process at Port, ICD and CFS



S.L – Shipping Line: **VOA**- Vessel operating Agent: **IGM**- Import General Manifest: **IAL**- Import Advance List: **SMTP**-Sub Manifest Transhipment Permit: **OOC**- Out of Charge: **NOC**-No Objection Certificate: **PGA**-Partner Government Agency

4. Export Process at Port, ICD and CFS



5. Comparison of Port Processes

Parameter	JNP	Chennai	Mundra
Different entry and exit points at Ports.	The terminal gate and port gate is the same in case of the JNP. During the dwell time calculation of the road bound cargo, time calculation starts from the entry or exit from these gates.	The terminal gate and port gate is not the same in case of Mundra and Chennai port. Terminal gates – usually container yard gates- are inside the port. The terminal records gate out or gate in when the container crosses the terminal gates.	
Presence of Customs personnel at the port gate.	There is no customs personnel stationed at the gates at the JNP. For exports, the customs personnel have been shifted to the holding/parking yard where customs procedures are carried out.	At Chennai and Mundra ports, Customs personnel have been stationed at the port gate. Further, at Chennai port the customs personnel checks all the documents at the port gate thereby leading to escalation of dwell time. The time taken at the port gate in case of Mundra and Chennai is not reflected in the port dwell time figures mentioned in this report due to presence of separate terminal and port gate.	
Free days at the terminal for the road and rail bound EXIM containers.	The terminals at Chennai port and the JNP provides a free period of 72 hours (3 days) for Road bound containers and 168 hours (7 days) for rail bound containers.		At Mundra the terminals provide 3 calendar days (not 2 hours) free period for the road bound containers and 10 calendar days for rail bound. If a container is discharged at 01:00 hrs or 23:00 hrs on 01-01-2018, the free period will be till midnight 03-01-2018.
Different procedure for evacuation of rail bound containers from the port.	The railway lines are within the terminal area. The containers transported through rail are loaded and unloaded from the rake within the terminal. The departure of rake is considered as port out and arrival of rake as port in at the JNP.	In case of Chennai port, there is a separate railway yard outside the CCTL gate, operated by CONCOR. The containers transported through rail leave the terminal gate to be shifted to the yard where they are loaded onto the rakes. However in case of CITPL, railway line is placed in the terminal and containers are loaded onto the rake within the terminal.	Same as the JNP
Entry of Export cargo into the port after customs clearance.	The export containers enter the JNP and Chennai port only after they are cleared by customs.		At Mundra port the containers are allowed inside the terminal without custom clearance. Therefore, the time the containers spend at the

		terminals also includes the time for custom clearance, which may result in a higher dwell time for export containers for Mundra compared to the JNP and Chennai port.

TIMELINE ANALYSIS

SNAPSHOT

IMPORT TIMELINES

Stakeholder	Dwell Time	JNP	MUNDRA	CHENNAI
PORT	Port Dwell Time	43:21	64:17	44:07
	Port Dwell Time for CFS Bound Containers	34:29	21:18	35:31
	Port Dwell Time for ICD Bound Containers	58:10	106:04	49:24
	Port Dwell Time for DPD Containers	45:56	66:23	57:23
CFS	Dwell Time at CFS	121:33	110:09	73:03
ICD TKD	Dwell Time at ICD TKD	160:54	160:54	--
Road Transit time	Time taken from Port to CFS	9:19	0:57	1:39
Rail Transit time	Time taken from Port to TKD	73:57	102:40	--
Port, CONCOR & Railway	Rake Turnaround Time	11:31	10:59	22:03
	Rake Handling Time	05:56	06:35	06:18
Overall Dwell Time		151:04	244:56	90:36

Customs Release Time			
JNP	MUNDRA	CHENNAI	TKD
43:04	34:18	42:15	34:43

**In case of Chennai, only CFS and DPD is considered while analysing overall import dwell time as we do not receive data from ICD Whitefield (Bangalore) which is the major ICD for Chennai port.*

EXPORT TIMELINES

Stakeholder	Dwell Time	JNP	MUNDRA	CHENNAI
PORT	Port Dwell Time	73:03	102:38	59:38
	Port Dwell Time Containers Originated from CFS	64:36	75:31	59:00
	Port Dwell Time Containers Originated from ICD	98:55	108:10	63:35
	Port Dwell Time for DPE Containers	67:31	107:40	59:48
CFS	Dwell Time at CFS	137:07	170:41	51:05
ICD TKD	Dwell Time at ICD TKD	84:54	84:54	--
Road Transit time	Time taken from CFS to Port	21:08	--	--
Rail Transit time	Time taken from TKD to Port	64:22	93:32	--
Overall Dwell Time		169:25	180:34	149:01

Customs Release Time			
JNP	MUNDRA	CHENNAI	TKD
3:30	6:15	4:46	10:54

**In case of Chennai, only CFS and DPE is considered while analysing overall export dwell time as we do not receive data from ICD Whitefield (Bangalore) which is the major ICD for Chennai port.*

6. Timeline Analysis

6.1. Loaded container Volume Handled by the Ports

The EXIM volume of loaded containers handled at the select ports has been provided in the chart below. It is to be noted that the data given in figure 1 does not represent the total number of containers handled at the ports, which would be higher than the figures mentioned in the chart. The total volume of containers handled at a port also include empties, transhipment containers, Shipper's Own Containers (SOCs) and containers meant for SEZ around the port.

Figure 1: Number of EXIM Loaded Containers Handled

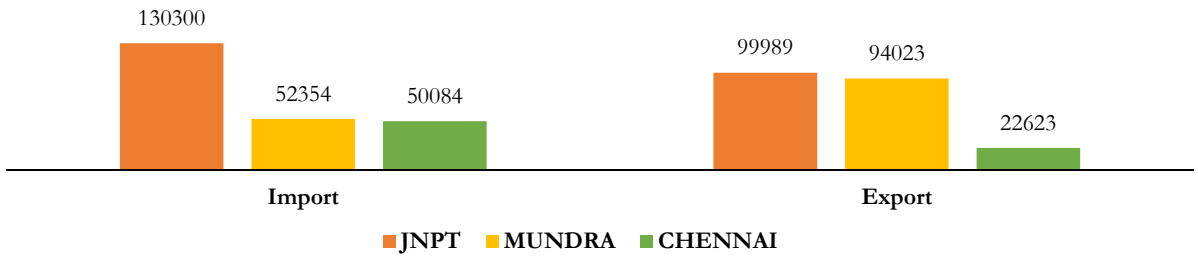
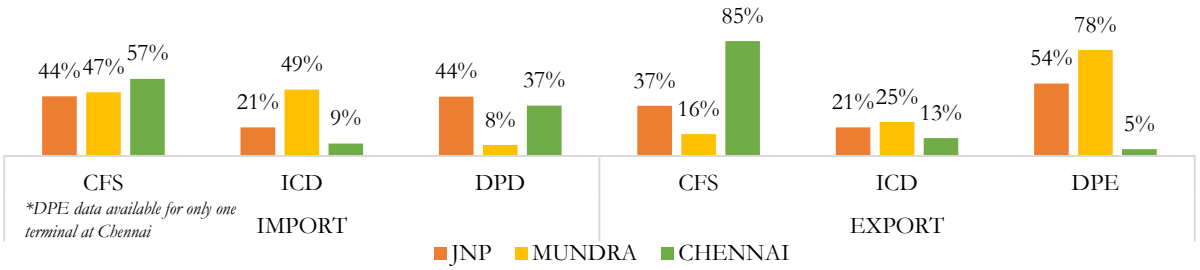


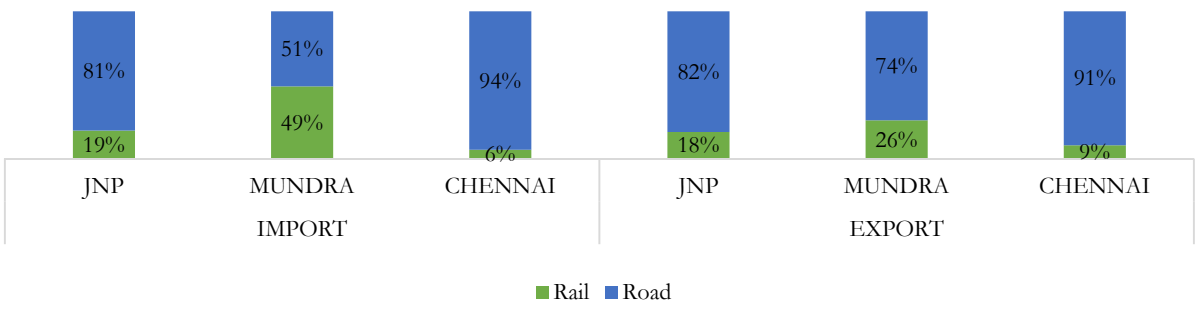
Figure 2: Share of Loaded Containers



The DPD percentage has been calculated from the loaded containers excluding the ones going to ICDs. For example, if 100 containers are imported at a port out of which 20 containers are going to ICDs, the share of DPD would be calculated from the remaining 80 containers. This has been done considering the fact that the DPD facility is presently available only to the non-ICD bound containers. Further, the DPD percentage at Chennai has seen a sharp increase in the month of May-18, owing to an updated DPD segregation in the data sets provided by terminals which includes ACP, DPD/DPD and DPD/CFS containers.

At Chennai Port, DPE containers are routed through the CWC parking yard, located in Thiruvottiyur, 7 km away from the Chennai Port.

Figure 3: Share of Road and Rail bound Containers



6.2. Port Dwell Time

Port or Terminal dwell time is the calculation of the time a container is at the terminal. It is calculated as the average time taken from container discharge from the vessel to the time of container evacuation from port gate for import and time from the entry of container into the port till it is loaded onto the vessel for export. In case of Mundra, for import, the out time has been taken as gate out from the container yard at the terminal. Terminal dwell time varies with respect to the destination or source of the container – Container Freight Station (CFS), Inland Container Depot (ICD) or Direct Delivery (DPD or DPE).

Figure 4: Average Port Dwell Time (Hours)

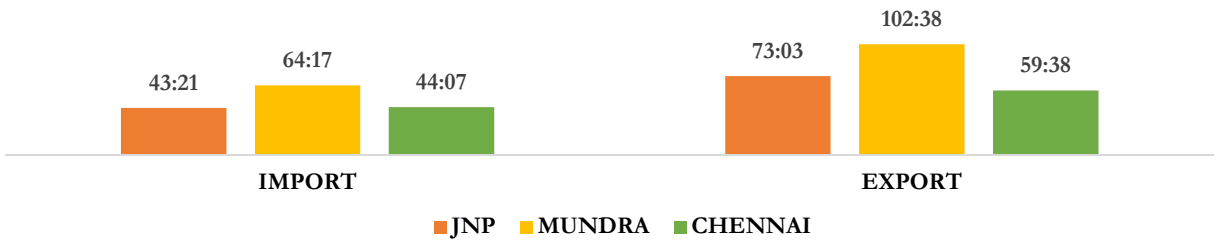
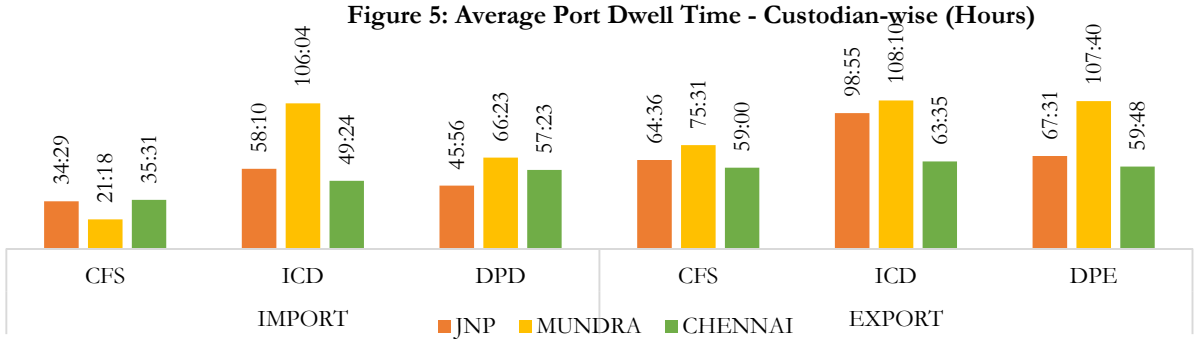
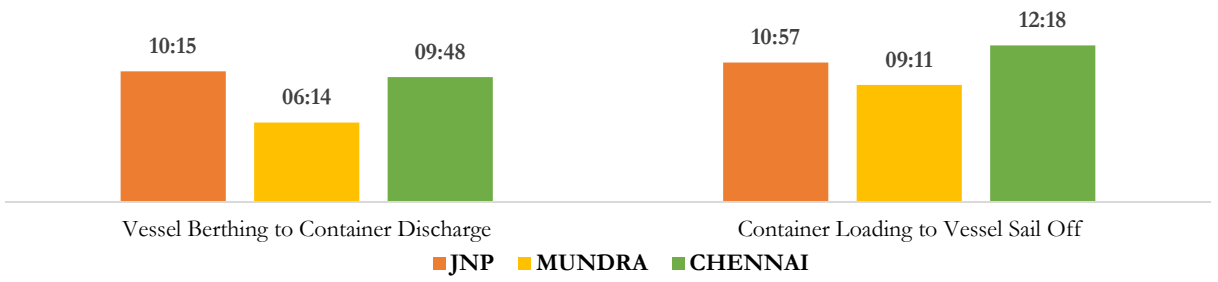


Figure 5: Average Port Dwell Time - Custodian-wise (Hours)



CFS operators have to obtain and submit hard copies of documents, for instance, *PNR copy (Public Notice Removal of Container)* to take the delivery at Chennai port unlike the JNP and Mundra leading to a high dwell time. The port dwell time for ICD bound containers at Chennai port is considerably low compared to other two ports. One of the reasons for this metric is that the gate out for ICD bound containers at CCTL Terminal, Chennai port is recorded when the containers move out of the terminal to be shifted to a separate Railway yard operated by CONCOR. The time spent at the railway yard till the departure of the rakes is not captured by terminals at the Chennai port.

Figure 6: Berth Efficiency (Hours)



Before the containers are discharged from the vessel, the customs, immigration and PHQ officials inspect the ship. Operational factors such as the number of quay crane moves along with external

factors such as the tide situation, vessel size, time taken for customs processes, etc. determine this metric. Similarly, post loading of containers during export process, the vessel has to be moved off the berth for sail off. This process is dependent on external factors such as favourable tide, etc. These two processes are representative of the berth efficiency at the select ports.

6.3. Transit Time - Import

Transit time is the time taken for the container to reach the custodian - which can either be a CFS or an ICD. The rail transit time for ICD has been calculated as the difference between the time of departure of rail from the source location to its arrival at the destination. The CFS transit time is taken from the time of exit of a container from port to its arrival (gate-in) at the CFS. The transit time through road for JNP, Chennai and Mundra has been calculated using data provided by 10, 3 and 1 CFSs respectively.

Table 3: Transit Time of Import Containers					
	JNP		Mundra		Chennai
	Road	Rail	Road	Rail	Road
Average time taken (hr)	9:19:18	73:57:57	0:57:36	102:40:05	1:39:58
Road time is taken from the time of exit of a container from port to its arrival (gate-in) at the CFS, Rail time is taken from the time of departure of rail from the source location to its arrival at the ICD.					

6.4. Transit Time – Export

Transit time for CFS and ICD has been calculated as the time taken from departure of containers from ICD or CFS to their arrival at the port. The transit time through road for JNP has been calculated using data provided by 3 CFSs.

Table 4: Transit Time of Export Containers				
	JNP		Mundra	Chennai
	Road	Rail	Rail	Road
Average time taken (hr)	21:08:14	64:22:52	93:32:44	NA
Road transit is taken from departure of containers from CFS to their arrival at the port, Rail transit is taken from departure of containers from ICD to their arrival at the port.				

6.5. Customs Release Time

Customs release time is the time taken by the customs authorities, be it at the dock, at CFS or at ICD. In case of imports, the customs release time is calculated as the average time between submission of bill of entry to assessment and registration of goods to OOC [in case of RMS and Group B/E]; and registration of a container to assessment and duty payment to OOC [in case of Group (First Check) B/E]. It must be noted that the process of customs release is not linear; many agencies play a parallel role such as the PGAs, the importer/customs broker for duty payment, shipping line for delivery order and the CFS. In case of exports the release time is the duration between registration of goods and issuance of LEO.

Figure 7: Average Customs Release Time (Hours)

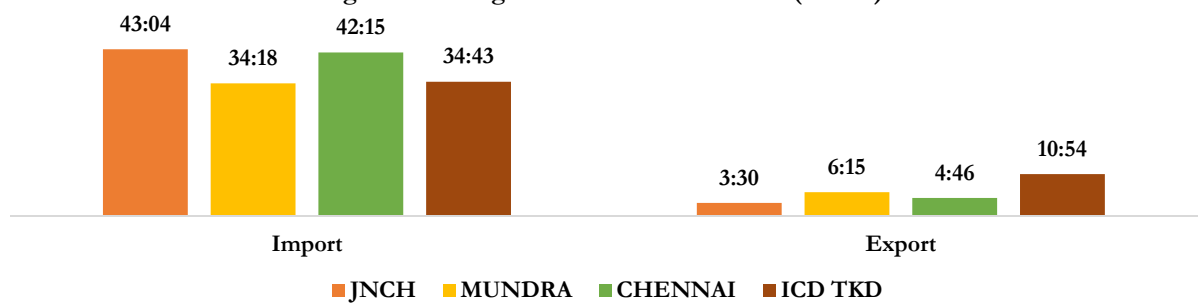


Figure 8: Share of RMS Facilitated Bills of Entry

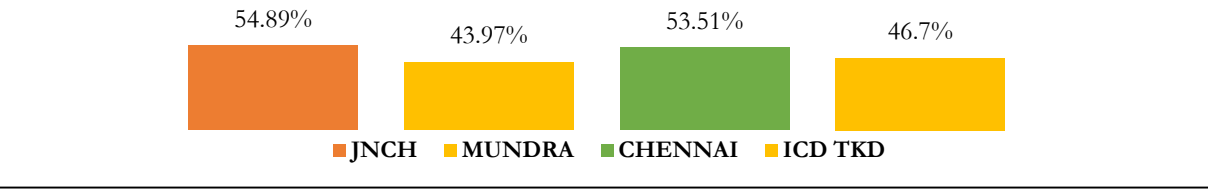


Figure 9: Share of Examined Bills of Entry and Containers

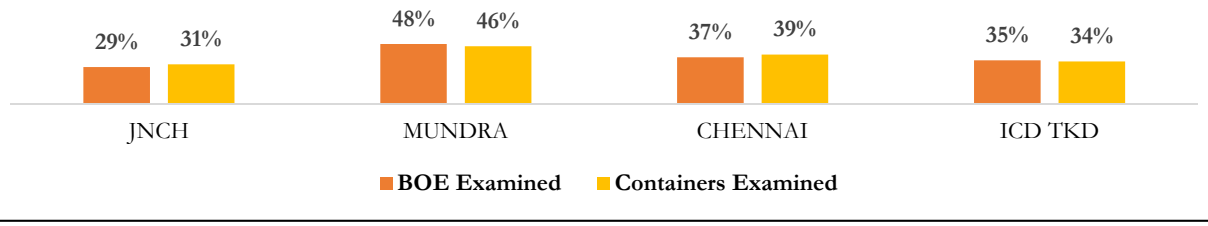


Figure 10: Status of BOE JNCH

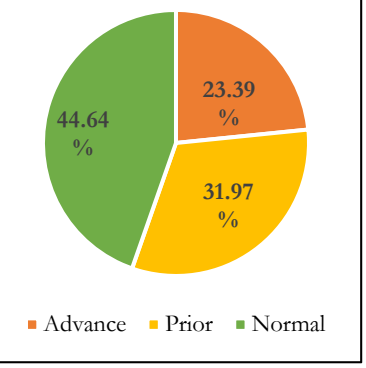


Figure 11: Status of BOE Mundra

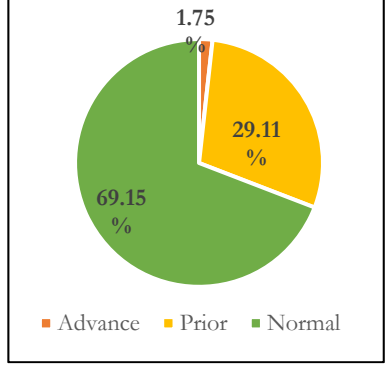
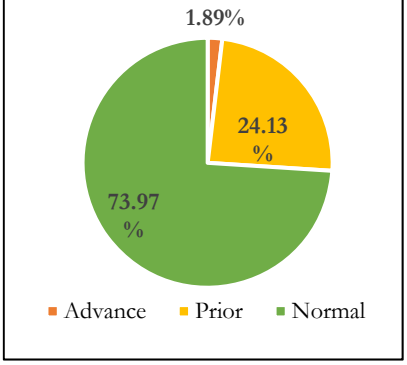


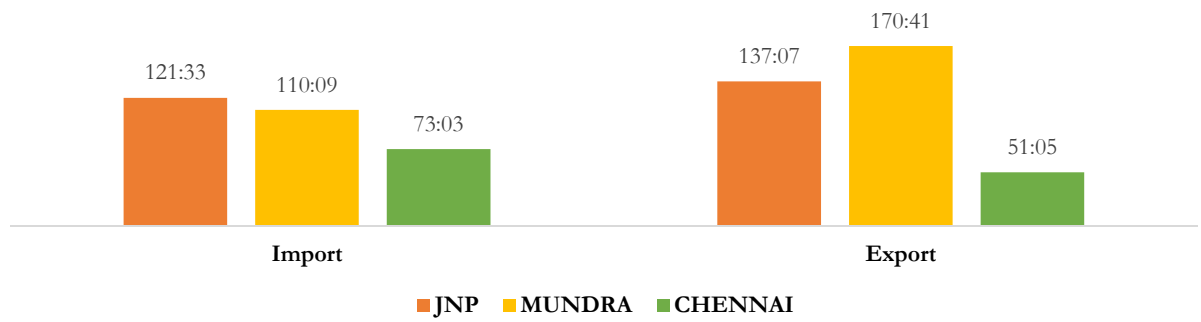
Figure 12: Status of BOE Chennai



6.6. Container Freight Station (CFS)

CFS import dwell time is calculated from the time of gate-in of a container at the CFS to its custom clearance which is issuance of Out of Charge (OOC) by customs in case of imports. For exports, dwell time is calculated from the issuance of export carting order to the gate-out of container from CFS. Please note that the total time taken by CFS is calculated in terms of gate-in to OOC (and not as a linear addition of time taken in the various processes) due to the sample size being different for each process and many parallel processes involving customs, customs brokers and shipping line taking place. The list of CFS along with their dwell time has been provided in the annexure.

Figure 13: Average CFS Dwell Time (Hours)



6.7. Inland Container Depot (ICD) Tughlakabad

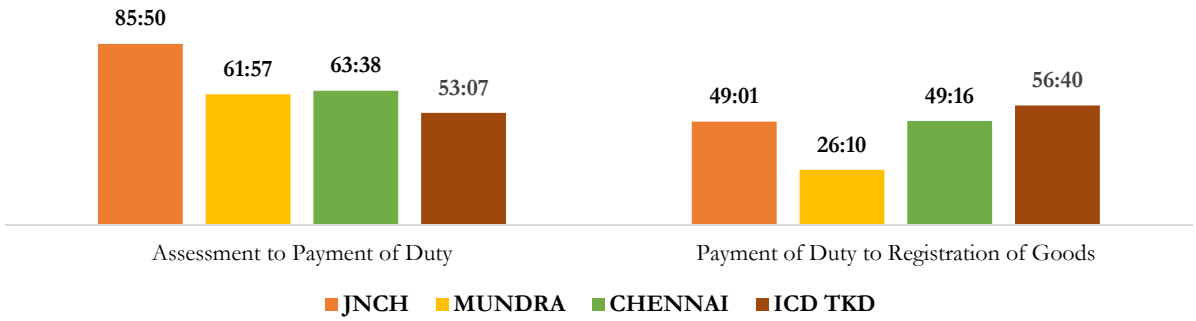
The overall dwell time of containers at ICD Tughlakabad has been computed as the weighted average of overall dwell time figures for all the different categories under analysis viz. green channel factory de-stuffed/stuffed containers, non-green channel factory de-stuffed/stuffed containers, warehouse bound containers and direct de-stuffing/stuffed containers.

Table 5: ICD Tughlakabad Dwell Time	
ICD Time Import (Arrival – OOC)	**160:54:44**
ICD Time Export (Arrival – Dispatch)	**84:54:52**

6.8. Time Taken by the Trade – Importers/Customs Brokers

It is imperative for time-to-release studies to take into account the time taken by the importers or their customs brokers for completing various procedures like payment of duty and registration of goods with the customs. These procedures substantially add to the custodian release time and the need for factoring in such parameters – to arrive at a clearer view of the role of and time taken by the custodians as well as the trade – is paramount. In a number of cases, delays in payment of duty by the importers or in the clearance process occur due to reasons such as: a) paucity of funds for clearances – as a result of which the cargo remains in the customs bonded area within the CFS/ICD and b) market evaluation by the traders before releasing goods from the custodian. For ease of doing business, it is important that the importer completes the necessary payments and formalities on time to ensure timely completion of rest of the procedures.

Figure 14: Average Time Taken by Trader/Agent (Hours)



6.9. Rake Handling

The turnaround time of rakes at the terminals is the time taken from arrival of rake to its departure from the terminal. The processes that take place during this period include discharge of export containers or empty containers, loading of import containers, submission of rake removal memo and coupling of engine. The time taken by the terminal to unload the export cargo and load the import cargo is called the Rake Handling Time. The turnaround time and the rake handling time at the JNP, Chennai and Mundra port is depicted in Figure 15.

Figure 15: Rake Handling Time (Hours)

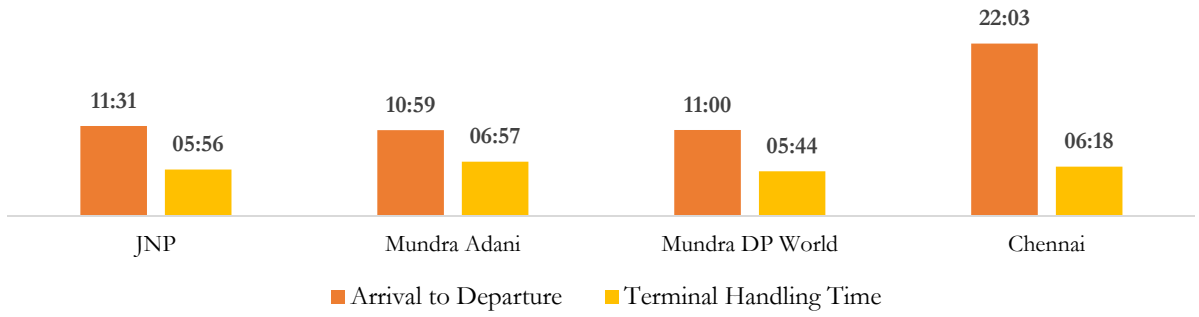
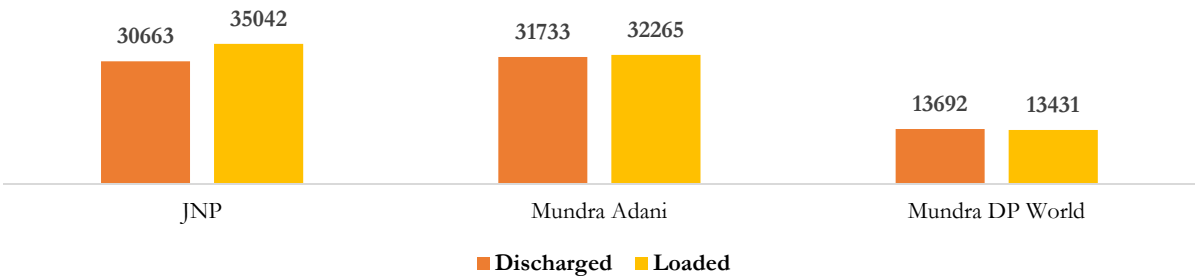


Figure 16: Number of Containers Discharged and Loaded



6.10. Shipping Line Delivery order

The shipping line provides delivery order (DO) as a final confirmation for delivery of cargo to the customs broker. Any delay by the shipping line in providing delivery order gets added to the total time of the container at CFS/ICD. Some DOs are given after issue of OOC by customs, while others are generated at the same time or prior to OOC, as represented in table 6.

Table 6: Average Time Taken for Generation of Delivery Orders by Shipping Lines

	JNP	Mundra	Chennai
Total no. of DO	**16,479**	**2,763**	**4,407**
No. of DOs prior to OOC	4,546	911	857
No. of DOs given post OOC	8,972	669	2,694
No. of DOs received on same day as OOC	2,961	1,183	856
Average time taken from CFS gate-in to receiving delivery order	**190:47:35**	**121:24:31**	**151:14:22**

6.11. Partner Government Agencies

Partner government agencies (PGAs) are the allied agencies that are required to examine and provide clearance to certain types/categories of cargo. They play a key role in the overall process of cargo clearance. In an earlier practise, the time required by these agencies was added in the customs release time, however, some cargo (particularly perishable) is now released before the arrival of report by PGAs on the basis of a bond guarantee. This report analyses the time taken from sample collection to publishing of report by 3 PGAs -Animal Quarantine (AQ) for Mundra and JNP region, Food Safety and Standards Authority of India (FSSAI) for JNP and Chennai region, Drugs Controller for Chennai region. It is to be noted that the reports for some agencies like PQ and FSSAI may also be received after out-of-charge due to nature of the cargo.

Table 7: AQCS Release Time		
	AQCS (JNP)	AQCS (Mundra)
Total number of entries (n)	**486**	**197**
Average Time taken from Application to NOC for all BoEs (hr)	39:52:56	19:12:42
Total number of BoEs	483	197
BOEs for which sample was collected	174	15
Average Time taken from Application to NOC for sample collected BoEs	256:12:00	400:00:00
BoEs for which provisional NOC was issued	180	18
BoEs for which Provisional NOC was issued on the day of application	179	13

In case of FSSAI, the release time has been calculated as the summation of time taken by the FSSAI at various stages of the overall clearance process. The release in case of cargo where sample was collected is the time is a summation of the average time between filing of application by the trader to the time when the officer at the FSSAI scrutinises the documents, payment of dues to collection of sample, sample collection to the issuance of the NOC. In case of cargo where no sample has been drawn, the release time is the summation of the duration between filing of application and issuance of NOC.

Table 8: FSSAI Release Time (Chennai)			
	Sample	**Non- Sample**	**Not in Scope**
Total number of entries (n)	703	28	127
Total number of BoEs	580	20	65
Average FSSAI Release time (hr)	**152:22:27**	**32:03:18**	**65:55:13**

Table 9: FSSAI Release Time (JNP)			
	Sample	**Non- Sample**	**Not in Scope**
Total number of entries (n)	3115	229	126
Total number of BoEs	2262	170	93
Average FSSAI Release time (hr)	**162:38:46**	**49:53:13**	**59:22:07**

In case of Central Drugs Standard Control Organization (CDSCO), also referred to as CDRUG, the release time has been calculated as the summation of time taken by the CDSCO at various stages of the overall clearance process. The release in case of cargo where sample was collected is the time is a summation of the average time between filing of application by the trader to the time when the officer at the CDSCO scrutinises the documents, scrutinises the documents to collection of sample, sample collection to the issuance of the NOC. In case of cargo where no sample has been drawn, the release time is the summation of the duration between filing of application and issuance of NOC.

Table 10: CDSCO Release Time (Chennai)			
	Sample	**Non- Sample**	**Not in Scope**
Total number of entries (n)	10	1511	515
Total number of BoEs	7	597	318
Average CDSCO Release time (hr)	**328:48:00**	**24:22:52**	**2:50:34**
Note: There is no time mentioned in the activities in the data sets, therefore, two activities taking place on same day have a difference of zero hours between them which is technically incorrect. Due to this limitation the average clearance time is much lesser than other PGAs represented in this section.			

Due to unavailability of data from all PGAs from all the selected locations, present study also calculates the PGA clearance time from the data recorded by customs SWIFT platform. The only limitation with the usage of SWIFT data is that it only captures the starting process which is BoE sharing date and the culminating activity, NOC receiving time. Therefore, whilst comparing the PGA figures from the tables provided below, it must be borne in mind that the time mentioned also includes the time taken by the trade.

Average Time Taken by PGAs (JNCH)					
	PQIS	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	13,491	9,606	NA	16,618	1,815
Total number of BoEs	1,625	1,434	NA	3,464	584
Average time taken (hr)	**201:47:23**	**227:11:42**	**NA**	**148:23:27**	**143:03:54**

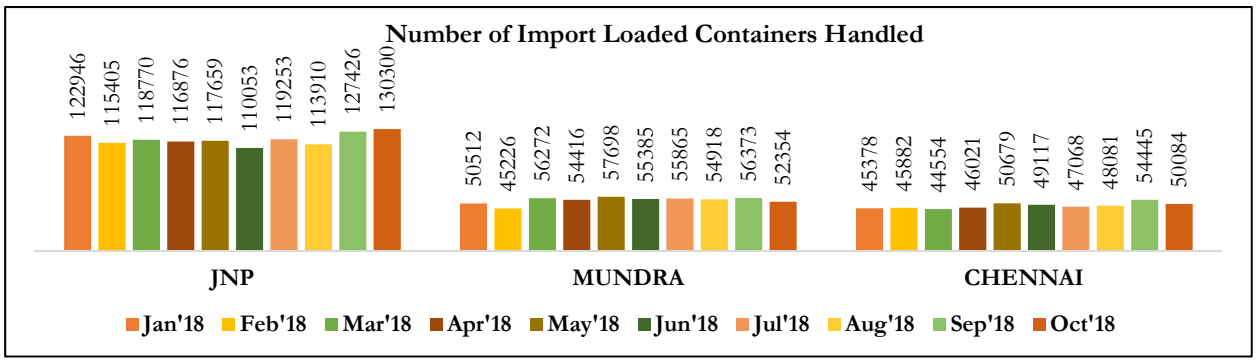
Average Time Taken by PGAs (Mundra Customs)					
	PQIS	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	3,479	NA	NA	NA	NA
Total number of BoEs	927	NA	NA	NA	NA
Average time taken (hr)	**159:16:08**	**NA**	**NA**	**NA**	**NA**

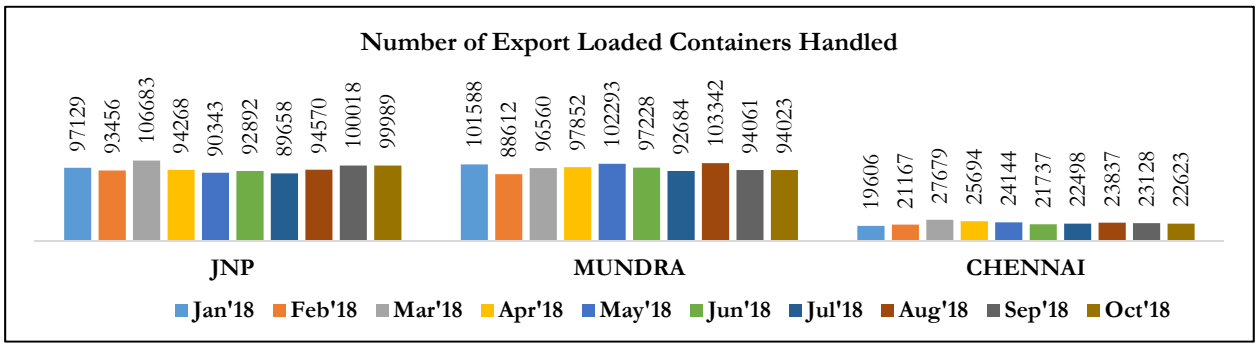
Average Time Taken by PGAs (Chennai Customs)					
	PQIS	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	913	555	NA	1,572	1,259
Total number of BoEs	666	426	NA	632	429
Average time taken (hr)	**168:08:38**	**174:48:53**	**NA**	**102:35:44**	**137:36:50**

Average Time Taken by PGAs (ICD TKD Customs)					
	PQIS	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	17,829	2,799	NA	1,308	290
Total number of BoEs	137	90	NA	181	78
Average time taken (hr)	**378:40:17**	**346:19:01**	**NA**	**132:10:17**	**157:16:56**

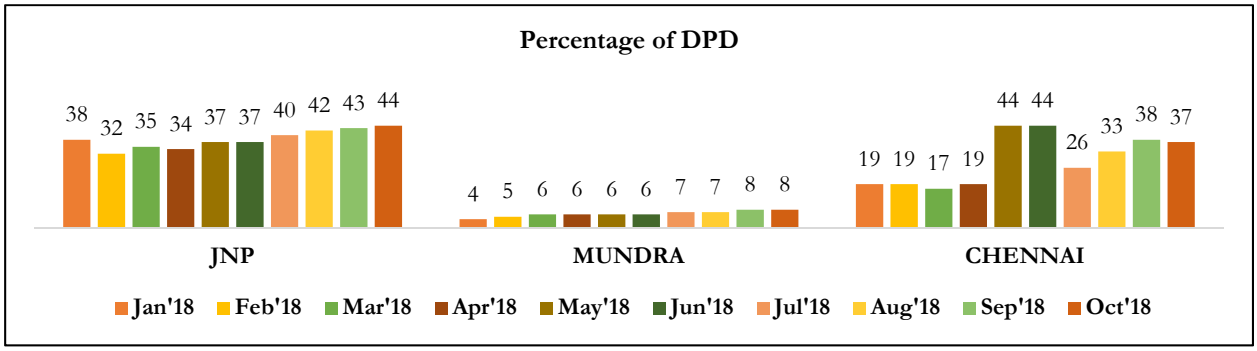
7. Trend Analysis

Volume of EXIM Cargo Handled

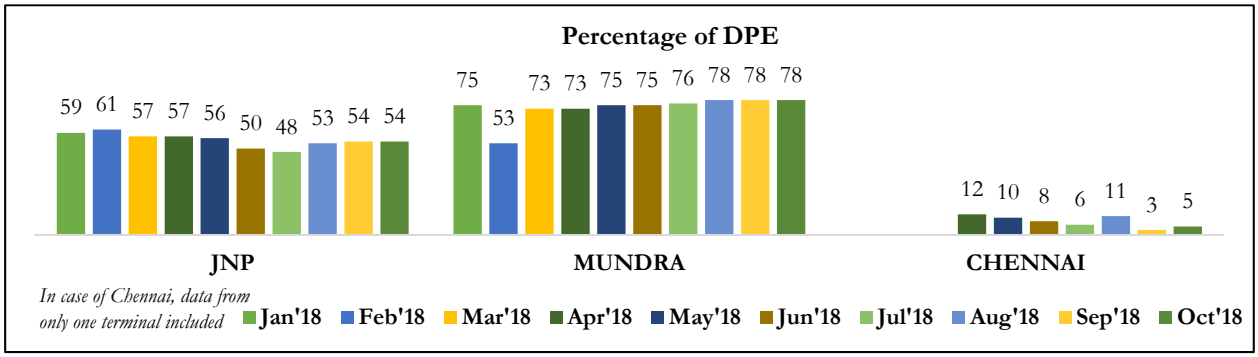




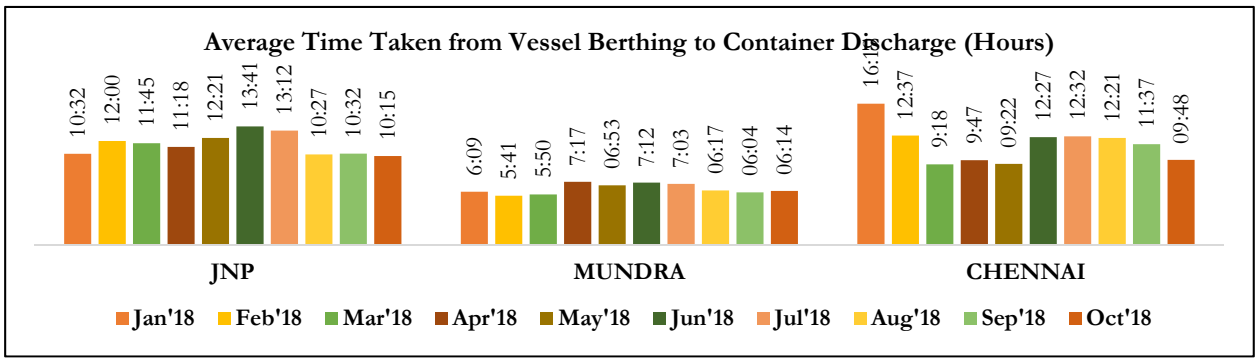
Share of DPD

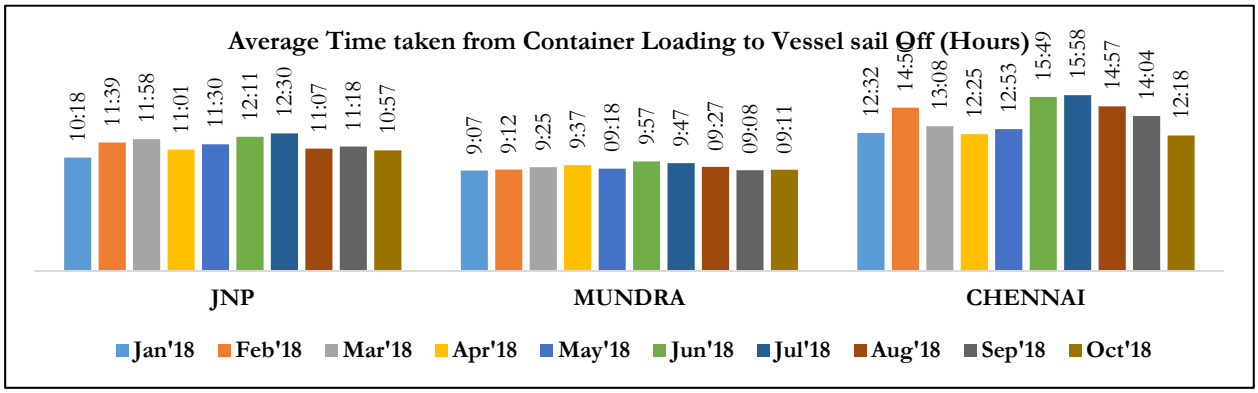


Share of DPE

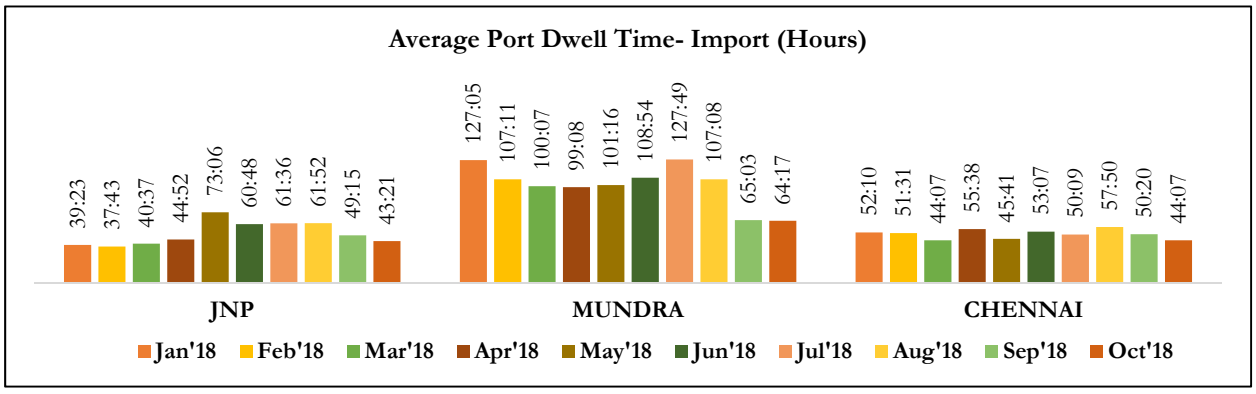


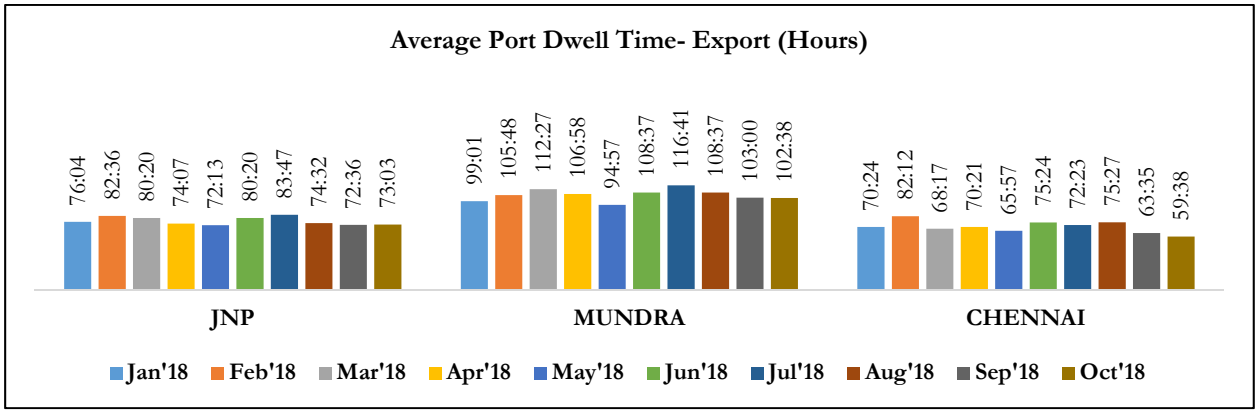
Berth Efficiency



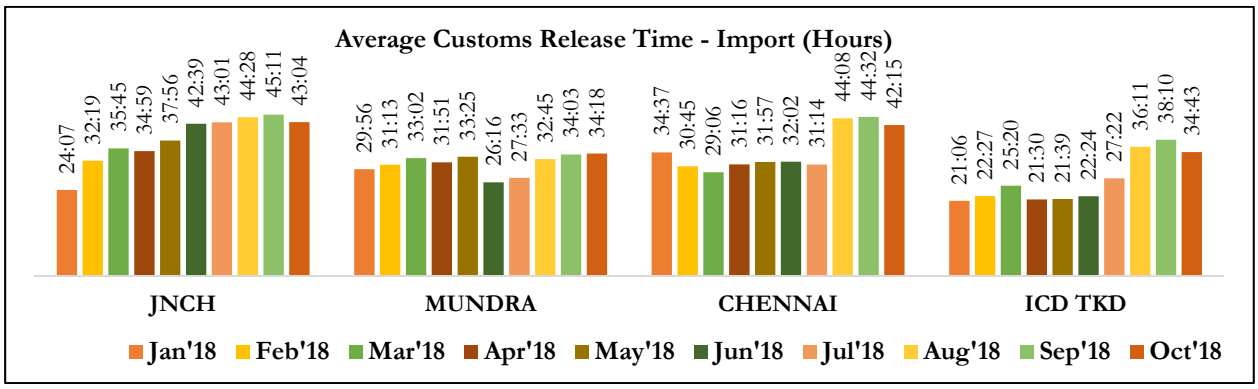


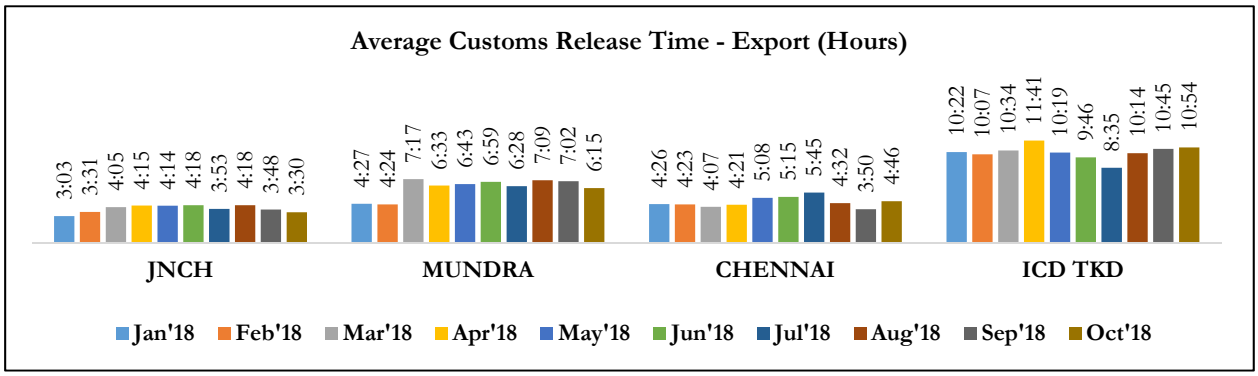
Port Dwell Time



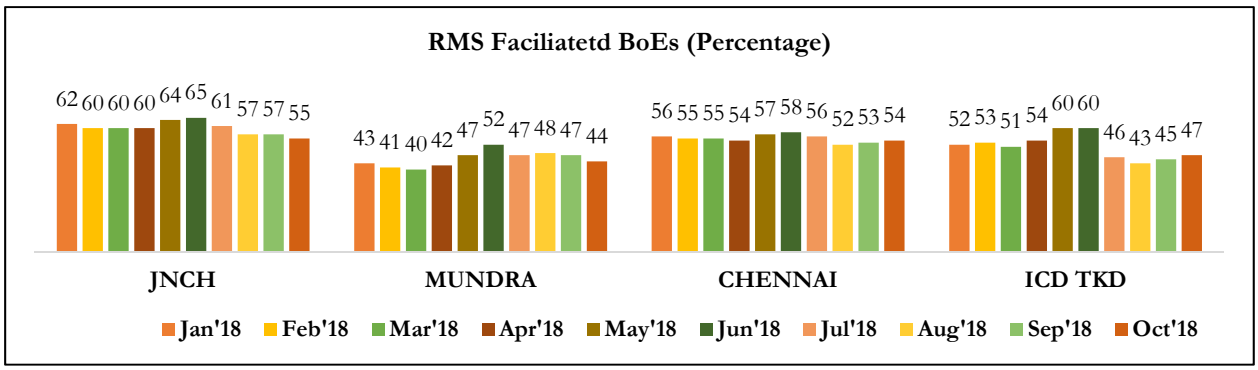


Customs Release Time

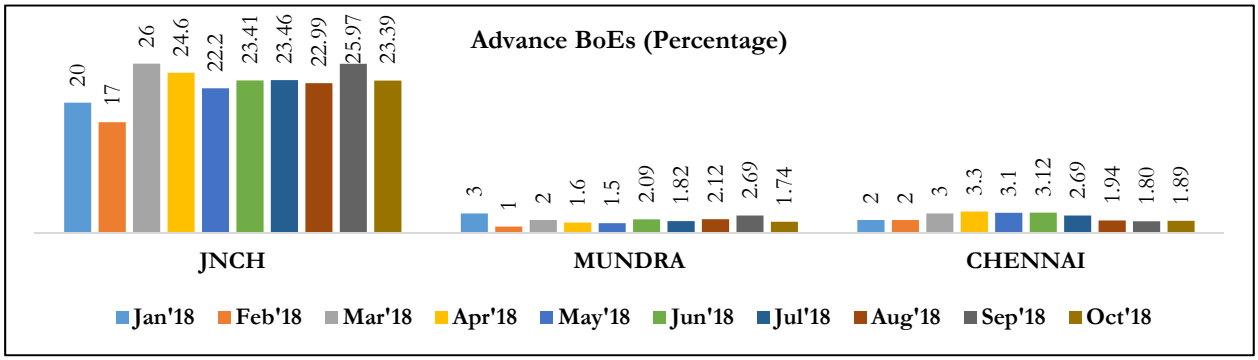




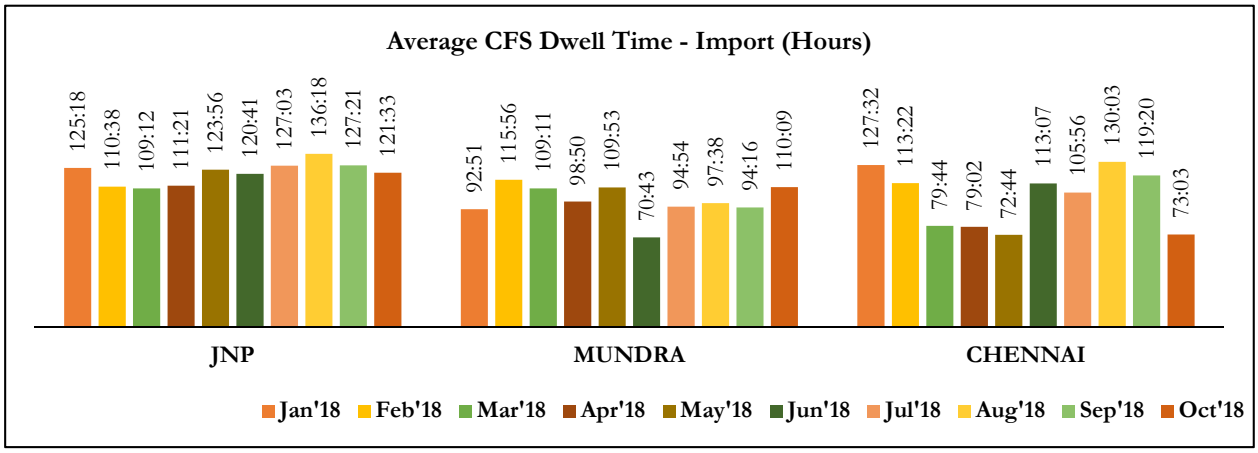
Share of RMS facilitated BoEs

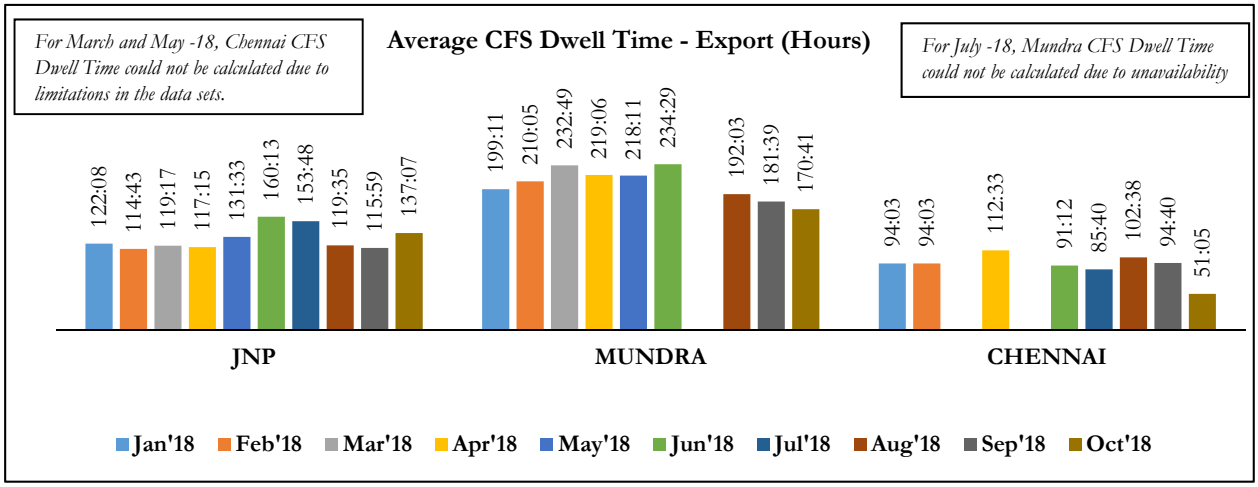


Share of Advance BoE

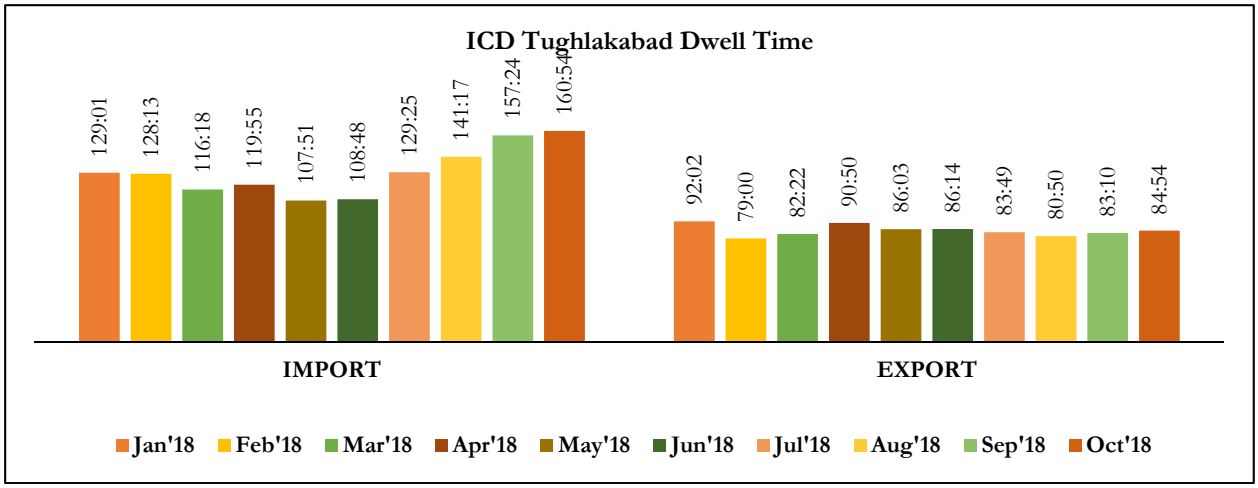


CFS Dwell Time

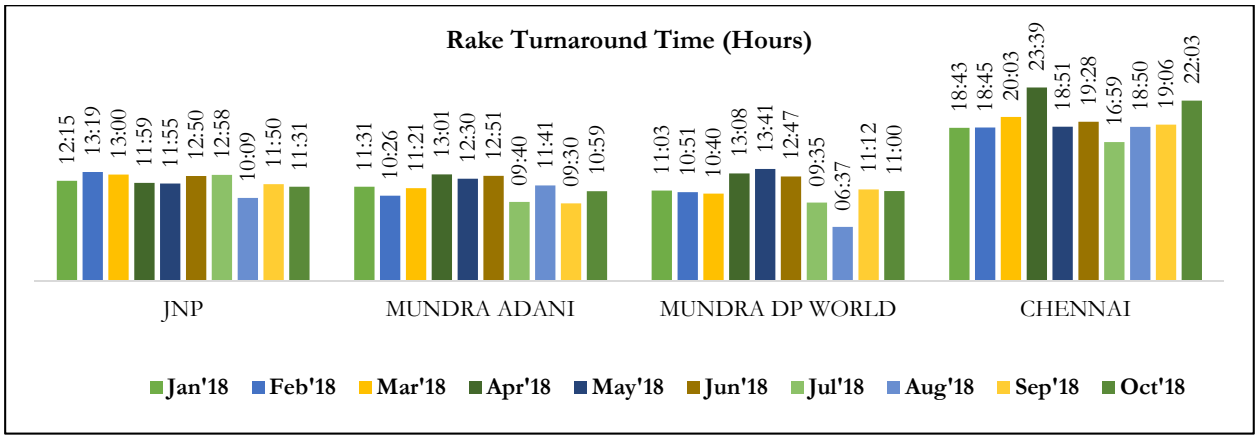


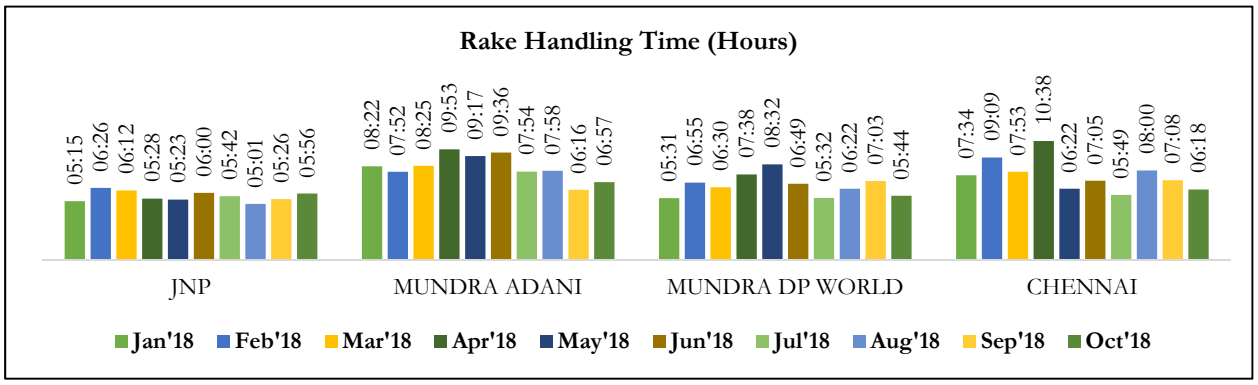


ICD TKD Dwell Time

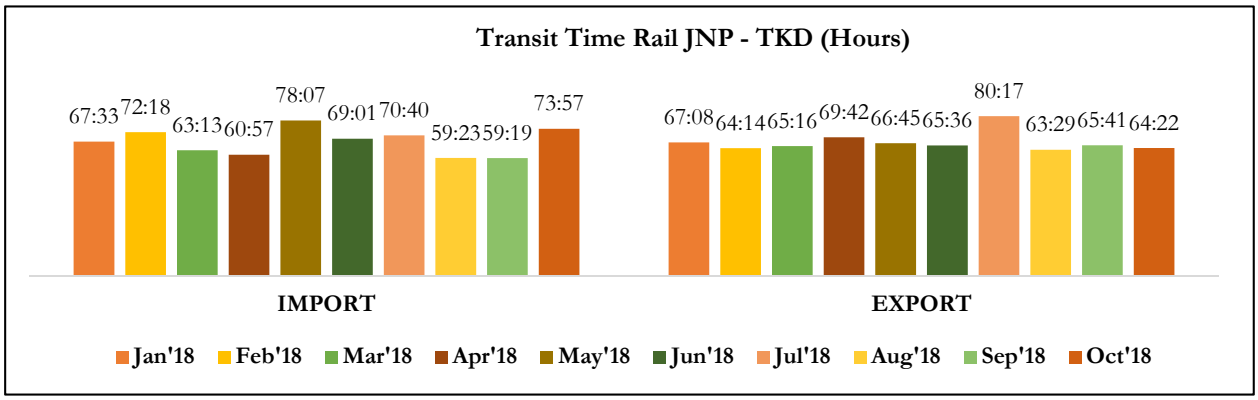


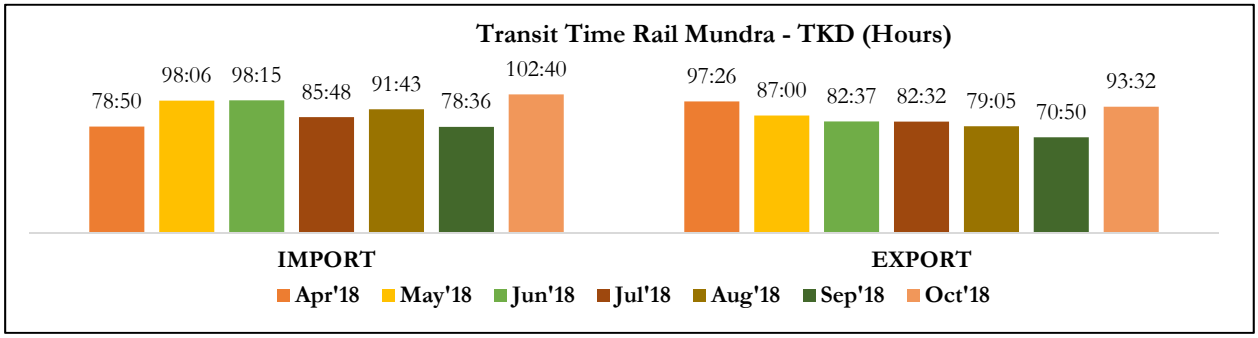
Rake Handling





Rail Transit Time





Annexure-I

Timelines for the Import of Auto-components from South Korea and Export of Electrical Machinery to US at JNP

Import Timeline of Auto components from South Korea	
Parameter	**Value**
Number of BoEs	128
Number of Containers	31347
RMS Facilitated BoEs	75 (59%)
Import Dwell Time (Entry Inward to OOC)	163:37:43
Customs Release Time	53:58:47

Export Timeline of Electrical Machinery to US	
Particulars	**Value**
Number of SBs	579
Number of Containers	2790
Customs Release Time	4:43:06

Number of Containers Handled by Ports EXIM

Number of Loaded Containers Terminal-wise			
Port	**Terminal**	**Export**	**Import**
JNP	JNPCT	16213	32288
	GTICT	33957	51961
	NSICT	16876	10737
	NSIGT	23657	23584
	BMCT	9286	11730
Chennai	CCTL	13144	16071
	CITPL	9479	34013
Mundra	ACMTPL	18687	9166
	AICTPL	34712	14674
	AMCT	22882	15489
	MICT	17742	13025
Total		216635	232738

Port Dwell Time Terminal-wise- Import

Terminal Wise Activities (Imports)					
Port	**Terminal**	**Vessel Berthing to Container Discharge**		**Container Discharge to Port Out**	
		N	**Avg.**	**N**	**Avg.**
JNP	JNPCT	32287	14:07:46	32140	40:56:51
	GTICT	51961	9:37:11	50373	46:10:36
	NSICT	10737	6:20:45	10737	46:17:37
	NSIGT	23584	9:27:56	23584	41:26:53
	BMCT	11729	7:36:40	11704	38:55:11
Chennai	CCTL	16071	9:38:56	16071	41:58:51
	CITPL	34013	9:53:30	33887	45:09:08
Mundra	ACMTPL	9166	6:09:24	9166	77:09:11
	AICTPL	14674	6:40:51	14674	69:43:27
	AMCT	15489	6:05:44	15489	50:11:01
	MICT	13025	5:58:16	13001	65:53:37

Port Dwell Time Terminal-wise- Export

Terminal Wise Activities (Exports)					
Port	**Terminal**	**Container In to Container Loading**		**Container Loading to Vessel Sail Off**	
		N	**Avg.**	**N**	**Avg.**
JNP	JNPCT	16213	74:53:25	14762	18:19:35
	GTICT	33957	66:44:41	33954	10:39:20
	NSICT	15023	74:20:02	16651	7:21:15
	NSIGT	21961	78:10:36	21961	9:22:56
	BMCT	9278	78:42:41	9286	10:30:33
Chennai	CCTL	13144	63:07:05	12838	11:32:46
	CITPL	9479	54:48:42	9479	13:19:35
Mundra	ACMTPL	18687	110:17:59	18687	9:30:55
	AICTPL	34712	98:52:10	34712	10:22:55
	AMCT	22882	101:05:36	22882	8:12:18
	MICT	17742	103:57:14	17742	7:49:25

CFS Process Timelines - Import

CFS Process Timelines (Import)								
Port	**CFS**	**Entries**	**N**	**GIN to SC**	**N**	**SC to OOC**	**N**	**GIN to OOC**
JNP	Allcargo Logistics Annex	3,915	3396	73:57:49	3101	16:58:49	3161	81:43:28
	Allcargo Logistics	20	16	93:23:41	13	29:32:18	14	112:20:17
	Ameya Logistics	2,990	2984	94:42:12	858	86:32:58	2595	106:56:31
	APM Main- Annex	5,386					4256	136:12:15
	Apollo Logisolutions	2,372	2326	151:43:30	518	83:49:21	1699	161:29:27
	Ashte Logistics	2,092	2092	83:35:54	1528	24:03:46	1917	93:28:16
	Continental Warehousing	2,028	1997	108:17:40	1374	22:00:31	1804	113:21:41
	EFC Logistics India	1,058	1058	59:12:20	100	112:47:20	679	73:01:50
	Globicon Terminals	3,193	3168	115:00:55	2556	39:43:40	2686	150:48:31
	JWR Logistics	5	5	79:29:00	3	10:27:40	5	85:33:00
	Kerry Indev Logistics	1,345	510	122:46:16	12	6:25:37	1095	95:04:17
	MICT	3,463	2021	95:04:45	823	89:08:23	2706	114:48:33
	Oceangate Container Terminal	1,898	1888	109:39:13	304	89:51:38	1407	123:37:11
	Seabird Marine Services	3,581	3581	102:15:15	571	112:32:46	2368	109:03:21
	Speedy Multimodes	2,577	2502	119:21:13	739	100:55:36	2168	133:24:30
	Vaishno Logistics Yard CFS	1,445	1432	91:17:38	696	87:27:50	1259	129:23:48
	Balmer Lawrie	1,944	1924	138:25:31	1942	32:50:52	1925	171:00:25
Chennai	All Cargo	3,709	3481	76:03:02	195	51:41:32	320	90:05:38
	CWCNSL (M)	914	914	4:32:34	914	0:00:00	914	4:32:34
	ECCT	1,222	479	88:39:59	227	66:31:36	1056	110:51:27
	CWCNSL Redhills	683	462	62:38:58	462	16:43:38	649	74:37:32
	GDL	3,234	1550	84:03:16	965	32:03:29	2235	80:20:11
Mundra	Mundra CFS	546	546	122:57:04	141	54:19:58	503	118:53:04
	Allcargo Logistics	2,452	2284	101:14:00	1730	25:17:25	2175	102:48:24
	Hind Terminals	3,778	3713	120:41:24	730	70:55:31	3530	113:26:09

CFS Process Timelines – Export

CFS Process (Export)								
Port	**CFS**	**Entries**	**N**	**ECO to STUFF**	**N**	**STUFF to MO**	**N**	**ECO to GO**
JNP	Allcargo Logistics Annex	1668	1637	93:05:56			1635	110:01:47
	Allcargo Logistics	434	359	96:46:15			350	127:39:09
	Ameya Logistics	605	604	92:19:06	605	19:14:20	604	114:29:54
	Apollo Logisolutions	1600	1491	111:13:47	1558	25:24:36	1575	162:09:03
	Ashte Logistics	587			587	4:07:46		
	Continental Warehousing	1158	1147	150:28:03	1158	21:20:09	1147	178:56:23
	EFC Logistics India	479	462	112:01:57	473	25:19:38	462	141:59:04
	Globicon Terminals	477	467	83:04:29	477	2:42:07	467	116:39:53
	JWR Logistics	5161			5137	6:36:49		
	Kerry Indev Logistics	402	402	0:00:00	144	24:01:23	402	19:42:53
	MICT	1945			1945	22:48:03		
	Oceangate Container Terminal	796	784	142:28:00	431	48:30:26	766	174:15:45
	Seabird Marine Services	609			491	30:46:19		
	Speedy Multimodes	1565			1360	51:35:15		
	Vaishno Logistics Yard CFS	1001			1001	33:48:19		
	Balmer Lawrie	515			515	0:00:00		
Chennai	ALLCARGO	2620			2617	12:57:03		
	Calyx CFS	600			232	53:15:17		
	CWCNSL, Redhills	1135	1135	49:59:16	1135	0:06:21	1135	51:05:14
Mundra	Mundra CFS	2085	1997	160:04:50	1060	28:20:03	1972	176:07:25
	Allcargo Logistics	1160	1148	126:38:54	1158	29:56:32	1147	161:22:11
	Hind Terminals	856			851	28:37:58		

ICD Process Timelines- Import

ICD Cumulative (Import)								
Number of Containers	**N**	**GC-FAC**	**N**	**Non-GC-FAC**	**N**	**Warehouse**	**N**	**Direct**
Arrival to EJO	NA	NA	1468	90:29:16	92	105:54:23	166	134:44:46
EJO to DJO	NA	NA	NA	NA	133	105:14:51	NA	NA
DJO to De-stuffing	NA	NA	NA	NA	127	15:11:40	NA	NA
EJO to OOC	NA	NA	1470	105:31:46	NA	NA	164	74:47:32
De-stuffing to OOC	NA	NA	NA	NA	94	109:30:01	NA	NA
OOC to DJO	NA	NA	NA	NA	NA	NA	143	53:26:25
OOC to Gate pass	1823	28:46:10	1435	15:08:19	97	61:05:10	NA	NA
DJO to Gate Pass	NA	NA	NA	NA	NA	NA	169	3:06:53
Gate Pass to Departure	1865	19:23:38	1474	14:12:34	133	2:39:27	170	4:21:59
Arrival to OOC	**1847**	**127:53:54**	**1453**	**191:08:18**	**121**	**241:34:56**	**164**	**205:24:18**
Arrival to Departure	1844	174:12:46	1450	219:22:46	118	281:14:12	163	255:24:48

ICD Process Timelines- Export

ICD Cumulative (Export)						
Number of Containers	**N**	**GC-FAC**	**N**	**Warehouse**	**N**	**Direct**
Arrival to CRN	463	26:40:56	NA	NA	NA	NA
Arrival to LEO	NA	NA	231	46:36:10	7	16:40:46
CRN to LEO	461	16:50:40	NA	NA	NA	NA
LEO to Loading	463	20:00:35	NA	NA	NA	NA
LEO to Stuffing	NA	NA	231	26:45:26	7	0:57:50
Stuffing to Sealing	NA	NA	213	8:06:50	7	0:32:52
Sealing to Loading	NA	NA	230	43:59:12	7	39:30:35
Loading to Dispatch	419	1:25:50	198	1:31:09	6	1:08:15
Arrival to Dispatch	**461**	**64:49:55**	**231**	**125:47:17**	**7**	**58:38:34**

PGA

AQCS Process-wise												
Agency	**N**	**BoE**	**N**	**BoE to APP**	**N**	**APP to SMP**	**N**	**SMP to RPT**	**N**	**RPT to NOC**	**N**	**APP to NOC**
AQCS JNP	486	483	471	164:35:10	172	0:00:00	40	225:36:00	340	3:36:00	340	39:52:56
AQCS Mundra	197	197	193	120:52:14	15	32:00:00	6	320:00:00	185	0:38:55	185	19:12:42

FSSAI Process-wise (Chennai)						
Process	**Sample**		**Non-Sample**		**Not in Scope**	
	N	Avg. Time	N	Avg. Time	N	Avg. Time
BoE to Application	703	105:42:39	28	104:44:52	121	186:16:01
Application to Scrutiny	703	29:57:34	28	24:40:43	127	64:12:38
Scrutiny to NOC	NA	NA	28	7:22:35	127	1:42:35
Scrutiny to Payment	703	20:57:29	2	7:22:46	NA	NA
Payment to Sample	272	37:13:23	NA	NA	NA	NA
Sample to NOC	702	85:11:30	NA	NA	NA	NA
Application to NOC	NA	NA	28	32:03:18	127	65:55:13
Total Time	**703**	**152:22:27**	**28**	**32:03:18**	**127**	**65:55:13**

FSSAI Process-wise (JNP)						
Process	**Sample**		**Non-Sample**		**Not in Scope**	
	N	Avg. Time	N	Avg. Time	N	Avg. Time
BoE to Application	3099	108:52:49	229	148:34:42	122	196:13:55
Application to Scrutiny	3115	30:41:05	229	34:54:12	126	39:52:49
Scrutiny to NOC	NA	NA	211	16:34:18	126	19:29:18
Scrutiny to Payment	3111	25:06:51	31	31:56:12	12	15:40:26
Payment to Sample	2147	38:53:24	NA	NA	NA	NA
Sample to NOC	3101	93:04:17	NA	NA	NA	NA
Application to NOC	NA	NA	229	49:53:13	126	59:22:07
Total Time	**3115**	**162:38:46**	**229**	**49:53:13**	**126**	**59:22:07**

Annexure-II

Methodology

Monthly Segregation of Data		
Stakeholder	**Import**	**Export**
Port	**Vessel Berthing**	**Port In**
Customs	**Out of Charge**	**Let Export Order**
CFS	**Gate Out**	**Gate Out**
ICD	**Departure**	**Departure**
PGA	**NOC**	**NOC**

Dwell Time Calculation		
Stakeholder	**Import**	**Export**
Port	**Container Discharge to Port Out**	**Port In to Container Loading**
Customs	**Submission of BoE to OOC**	**Registration to LEO**
CFS	**Gate in to OOC**	**Carting to Gate Out**
ICD	**Arrival to OOC**	**Arrival to Departure**
PGA	**Application to NOC**	**Application to NOC**
Rake TRT	**Arrival of Rake to Departure**	
Rake THT	**Unloading to Loading of Containers**	
**TRT- Turn Around Time: THT- Terminal Handling Time*		