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

December 2018

Highlights of the December Report

The following changes in timelines have occurred as compared to the previous month i.e. November 2018:

- Port dwell time for imports at JNP decreased from 37:53 to 32:35 hours. 32:35 hours is the lowest recorded time for the year 2018. Also, CFS bound and DPD containers recorded the lowest dwell time in the month of December i.e., 19:26 and 25:48 hours respectively.
- The port dwell time for exports decreased at JNP from 77:08 to 74:03 hours.
- The port dwell time for exports increased at Chennai from 69:52 to 77:36 hours.
- Share of DPD container increased at Chennai from 36% to 45%.
- Customs release time for imports at JNP, Mundra and Chennai decreased from 38:20 to 34:38, 48:51 to 33:28 and 51:27 to 44:34 hours respectively.
- Customs release time for exports at Chennai decreased from 06:45 to 4:50 hours.
- ICD TKD import dwell time decreased from 156:45 to 144:42 hours.

Contents

1. Introduction

On 31st October 2018, the World Bank released the sixteenth edition of its report, 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 as per 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 from 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 2018 in the Ease of Doing Business (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 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 improved by 66 places, currently pegged 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 processes as well as reduce time and cost of trade. Some of the notable initiatives include the introduction of electronic sealing of containers by the exporters in their own facilities, only 5 per cent shipments undergoing physical inspection in an enhanced risk-based management system, strengthening management and port infrastructure, and electronic exchange of documents (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 time and cost of trading through Mumbai over the last four years.

Table 2: World Bank's Estimate of Trading Across Borders through Mumbai								
Reporting Year	**Export**				**Import**			
	Documentary Compliance		**Border Compliance**		**Documentary Compliance**		**Border Compliance**	
	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 was 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 as well as 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 the use of physical copies of certain documents at the terminal, mandatory issuance of e-delivery order by shipping lines, introduction of RFID and the initiation of e-sealing facility for self-sealed containers.

In continuation of the previous study, the ***Logistics Division*** of 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 ports, and the present study has also been extended to Mundra Port and Chennai Port, in addition to the JNP for the year 2018. This study summarises time taken at various agencies with respect to the EXIM process at the three ports, covering all aspects of border and documentary compliance. This has been done through calculation of the time taken for import and export of containers through the JNP, Mundra and Chennai ports on a monthly basis along with the details of the time taken at every agency/stage involved in the process.

This report also acts as a reference 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 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 ease of doing business in India.

1.2. Purpose and Objectives

MONTHLY REPORTS

a. To track the supply chain of import/export at the 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 the 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, CDSCO etc. during the course of import and export.
- ✓ Number 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 consignments between ports and 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 to 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 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 calculations between different steps, also taking cognisance of any peripheral activity being undertaken, which affects 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) and 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. These reports summarise average timelines for analysed processes, custodians and finally, the export and import supply chains as a whole.

The datasets used in this 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 stakeholders. 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 in case of imports. A similar process was followed for exports as well. 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 exports, 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 monthly reports is 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 is made available to the trader/importer/agent for delivery under each custodian. For instance, the import dwell time of containers at a terminal is calculated as the average time taken from container discharge to container out time. However, it is to be noted that for the calculation of dwell time for ports, which includes multiple terminals, weighted average of all the terminals are 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 Loaded 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 time when it was made available to the trader for delivery, and not as a summation of time taken for individual processes, even if they are linear in nature (except for customs and PGAs). 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 dataset 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 containers 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 have been 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 have been 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 entries having arrival date in the month of January 2018 have been used for analysis for the month of January.

PGAs

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

1.5. Limitations of the Study

Despite having collected all data directly from the concerned stakeholders, there were certain unavoidable 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 a 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 affects the accuracy of 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. In case of one terminal (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.

h. *Unavailability of electronic data for PGAs*: During field visits and 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 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 not time for the commencement or completion of an activity leading to a statistical challenge where a difference of up to 24 hours can potentially be nullified. 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 five dedicated terminals, namely Jawaharlal Nehru Port Container Terminal (JNPCT), Gateway Terminals India Container Terminal (GTIPL), Nhava Sheva International Container Terminal (NSICT), Nhava Sheva International Gateway Terminal (NSIGT) and Bharat Mumbai Container Terminals Private Limited (BMCTPL). In addition, there is one liquid cargo berth and shallow water berth. Initially, the port was formed with the objective of reducing traffic at the Mumbai port, but ever since its inception it has chronicled persistent increase in performance and various achievements for India's foreign trade.

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

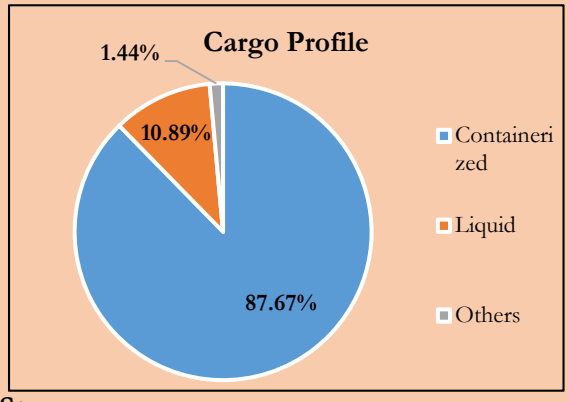
Berths	Draft (m)
15	14

Table 3: Container Capacity and Throughput at JNPT Terminals

Terminal	Capacity (TEU)	Throughput (TEU) (2017-18)
JNPCT	1,500,000	1,481,768
NSICT	1,200,000	641,122
NSIGT	800,000	659,400
GTICT	1,800,000	2,027,895
BMCTPL	2,400,000	23,212
Total	**7,700,000**	**4,833,397**

Cargo Profile:

In the financial year 2017-18, JNPT handled 66 MT of cargo. The break-up of cargo handled at the port has been represented as below:



Cargo Handling Equipment:

Table 4: Details of Cargo Handling Equipment

Equipment	Number
RMQCs	43
RTGCs	132
RMGCs	15

Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Liquid Tank (180 Tanks)	1,489,683 KL
Warehouse Area (CFS around JNP)	3,882,215 sq. m.
Open Area Storage (Inside Port Area)	2,589,527 sq. m.

Connectivity:

Table 6: JNPT Connectivity

CFS	Rail connected ICDs
34 Active Container Freight Stations	13 siding/tracks for 45 ICDs

2.2. Chennai Port

Port of Chennai, located on the eastern coast, is among the oldest major ports in India. Despite being an old port, it has adopted continuous modernization and therefore, provided efficient and convenient services to withstand the competition from existing and emerging ports. It is the first Indian port to introduce 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
1.49 million TEUs	1.55 million TEUs

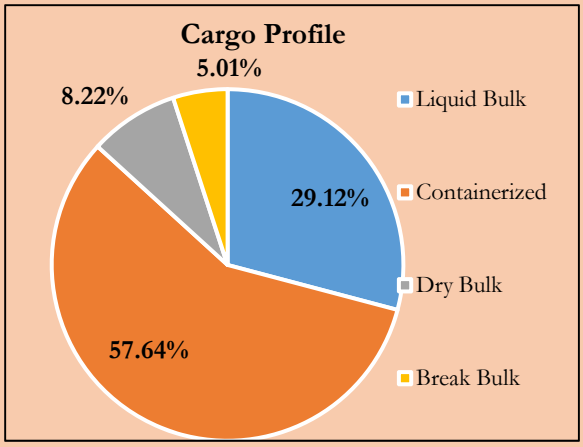
Infrastructure:

Table 2: Port Infrastructure

Berths	Draft (m)
27	15

Cargo Profile:

In the financial year 2017-18, Port of Chennai handled a total of 51.88 million tonnes of cargo, which has been segregated below:



Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Container Parking Yard	526,865 sq. m.
Warehouse Area	61,152.35 sq. m.
Open Space	502,869.82 sq. m.

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	**2,450,000**	**1,548,065**

Cargo Handling Equipment: (2017-18)

Table 4: Details of Cargo Handling Equipment

Equipment	Number
RMQCs	14
RTGs	40
Locomotives	7
Mobile Harbour Crane	2

Connectivity:

Table 6: Chennai Port Connectivity

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

2.3. Mundra Port

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

2016-17	2017-18
3.5 Million TEUs	4.1 Million TEUs

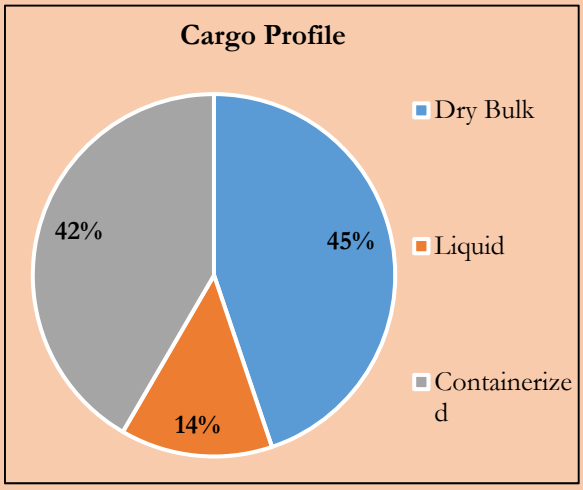
Infrastructure:

Table 2: Port Infrastructure

Berths	Draft (m)
25 berths	14 -18

Cargo Profile:

In the financial year 2017-18, Mundra Port handled a total of 179.03 MMT of cargo, which has been segregated below:



Storage:

Table 5: Storage Capacity at the Port

Particulars	Storage Capacity
Covered Area	206,146 sq. m.
Open yards	978,769 sq. m.

Table 3: Container Capacity and Throughput at Mundra Port

Terminal	Capacity TEU	Throughput TEU (2017-18
AMCT	1,200,000	922,900
AICTPL	3,000,000	1,571,800
ACMTPL	800,000	530,740
MICT	1,400,000	1,089,155
Total	**64,00,000**	**41,14,595**

Cargo Handling Equipment: (2017-18)

Table 4: Details of Cargo Handling Equipment

Equipment	Number
Mobile Harbor Cranes	10
Goliath cranes	8
Grab ship un-loader	10
Stackers/Reclaimers	9
Reach Stackers	8
Rail Mounted Gantry Crane	6
Rail Mounted Quay Cranes	32
Rubber Tyre Gantry Cranes	99

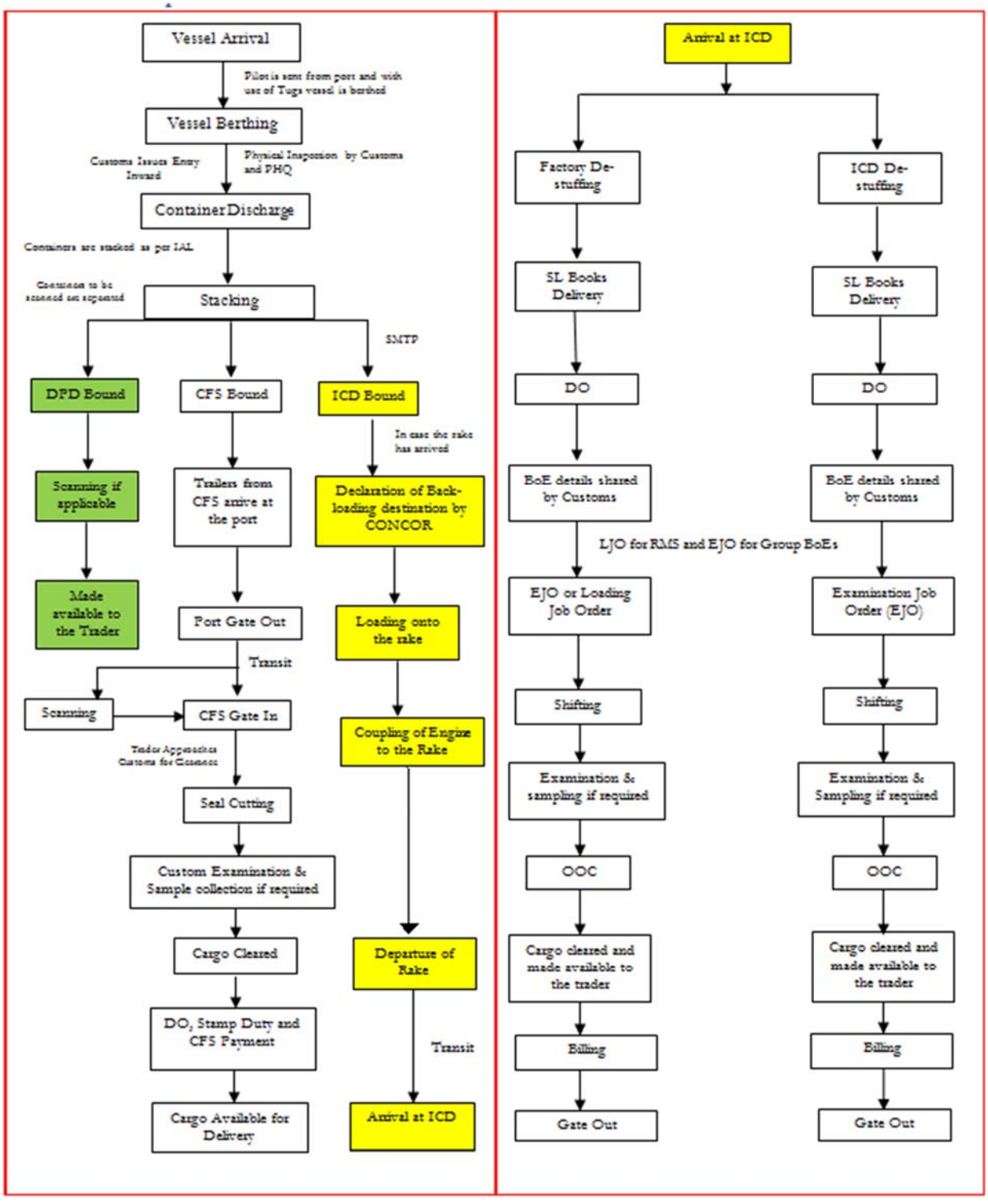
Connectivity:

Table 6: Mundra Port Connectivity

CFS	Rail connected ICD
13 Active Container Freight Stations	11 siding tracks for 26 ICDs through 12 CTOs.

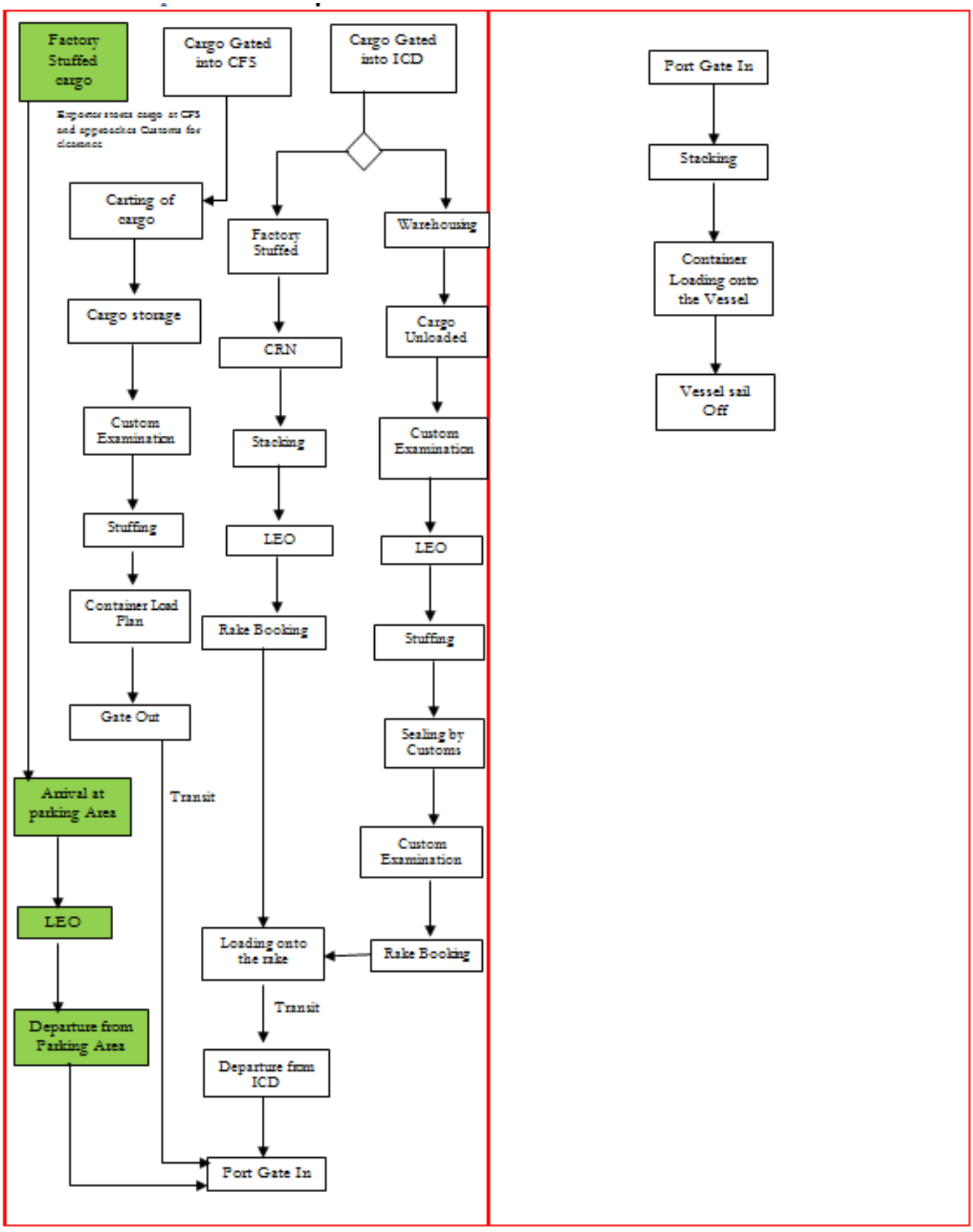
EXIM PROCESS

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 the terminal gates.	The terminal gate and port gate is not the same in case of Mundra and Chennai port. Terminal gates – usually container yard gate – 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 of 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, the 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 provide 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 72 hours) free period for road bound containers and 10 calendar days for rail bound containers. 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 procedures 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.	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 Mundra Port.
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	32:35	67:39	45:28
	Port Dwell Time for CFS Bound Containers	19:26	23:32	37:47
	Port Dwell Time for ICD Bound Containers	71:00	111:12	62:15
	Port Dwell Time for DPD Containers	25:48	62:15	51:31
CFS	Dwell Time at CFS	113:22	103:38	140:37
ICD TKD	Dwell Time at ICD TKD	144:42		--
ICD Whitefield	Dwell Time at ICD Whitefield	--	--	161:00
Road Transit Time	Time Taken from Port to CFS	8:46	0:57	--
Rail Transit Time	Time Taken from Port to TKD	61:44	84:39	--
Rail Transit Time	Time Taken from Port to Whitefield ICD	--	--	32:51
Port, CONCOR & Railway	Rake Turnaround Time	11:11	09:37	19:51
	Rake Handling Time	06:11	06:08	08:06
Overall Dwell Time		131:42	232:25	133:00

Customs Release Time			
JNCH	MUNDRA	CHENNAI	ICD TKD
34:38	33:28	44:34	32:21

EXPORT TIMELINES

Stakeholder	Dwell Time	JNP	MUNDRA	CHENNAI
PORT	Port Dwell Time	74:03	101:45	77:36
	Port Dwell Time Containers Originated from CFS	68:05	76:35	79:38
	Port Dwell Time Containers Originated from ICD	97:44	106:43	65:29
	Port Dwell Time for DPE Containers	68:13	107:35	61:15
CFS	Dwell Time at CFS	109:38	208:09	95:37
ICD TKD	Dwell Time at ICD TKD	77:55		--
ICD Whitefield	Dwell Time at ICD Whitefield	--	--	93:47
Road Transit Time	Time Taken from CFS to Port	16:22	--	--
Rail Transit Time	Time Taken from TKD to Port	62:45	76:07	--
Rail Transit Time	Time taken from Whitefield ICD to Port	--	--	26:56
Overall Dwell Time		154:33	184:30	210:55

Customs Release Time			
JNCH	MUNDRA	CHENNAI	ICD TKD
4:09	5:54	4:50	7:43

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 Figure 1 below. It is to be noted that the data given in the figure 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.[2]

Figure 1: Number of EXIM Loaded Containers Handled

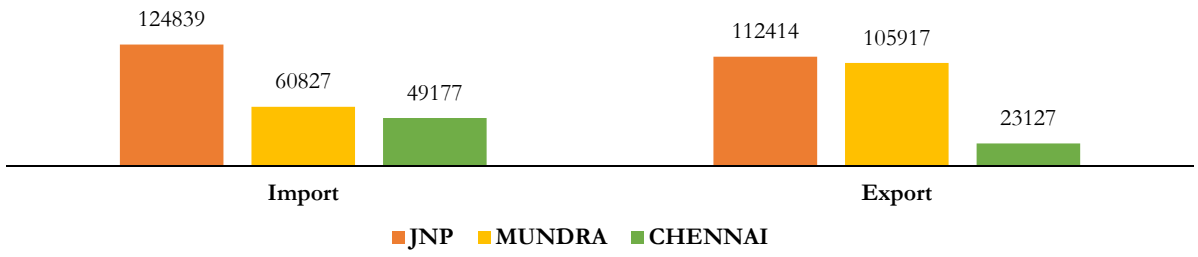
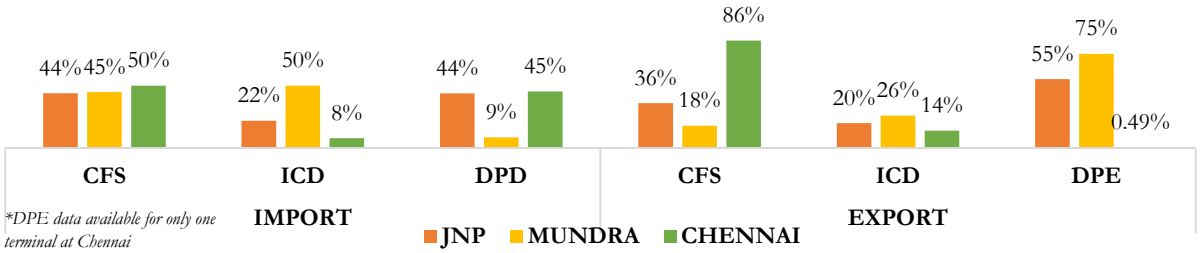


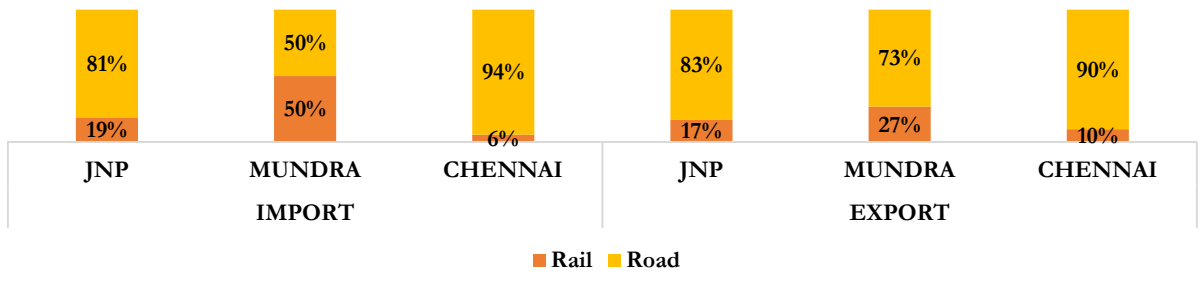
Figure 2: Share of Loaded Containers



The DPD percentage has been calculated from the loaded containers excluding the ones going to ICDs. For example, if 100 containers are imported through 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 datasets provided by terminals which include 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



[2] In case of one terminal (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.

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)

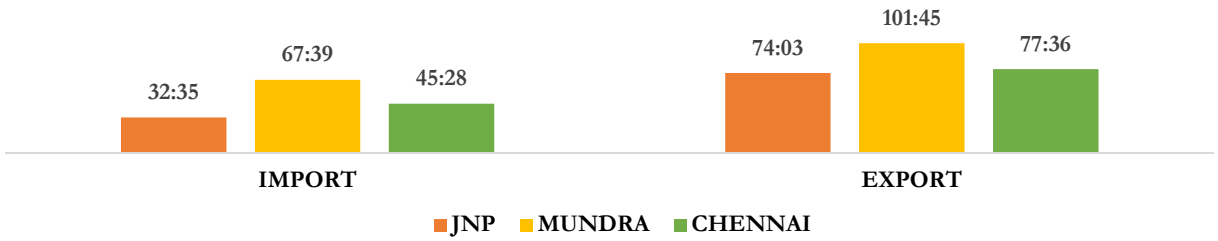
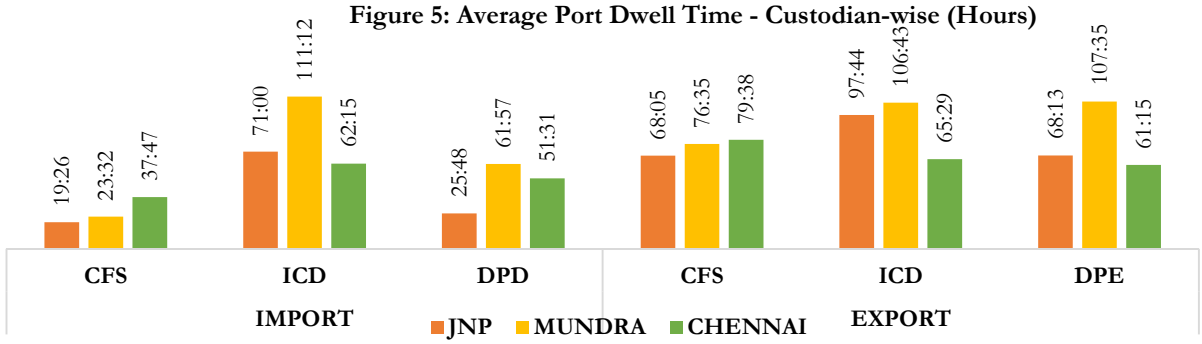


Figure 5: Average Port Dwell Time - Custodian-wise (Hours)



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. In case of export, the port dwell time for ICD containers at Chennai port is considerably low as compared to other two ports. One of the reasons for this variance is that data for the time spent by an export container at the CONCOR-operated railway yard is not available. The time is calculated from the gate in of ICD containers at the Terminal, which is done when the containers move into the terminal post exit from the railway yard.

At Chennai Port, only the CITPL (PSA) terminal has rail siding within the terminal.

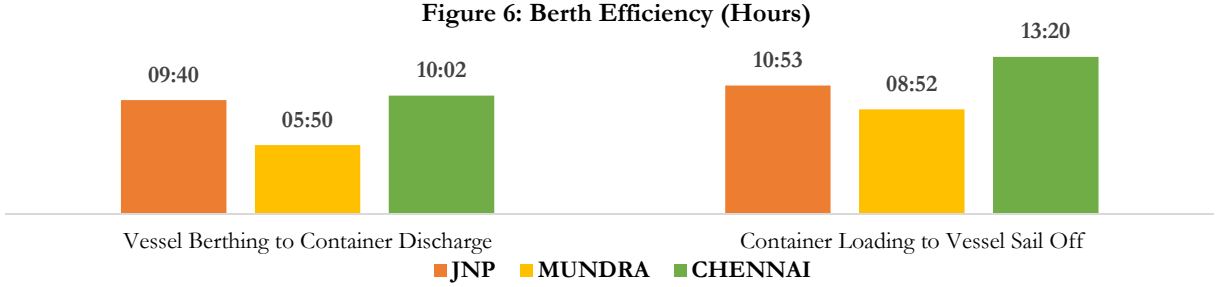
For CCTL imports, terminal dwell time for rail bound containers should include the terminal time, transit time and time spent in rail yard. Therefore, for the purpose of this report, the transit time and time taken at the rail yard are given separately and also included in the port dwell time.

For Dec 2018, the dwell time at rail yard has been **34:36:42.** Container dwell time at rail yard is taken from the time container enters the rail yard till the time it exits the rail yard.

For Dec 2018, the average transit time of containers from terminal to rail yard was computed to be **3:26:29**.

Berth Efficiency: 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 the 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.

Figure 6: Berth Efficiency (Hours)



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, Mundra and Chennai has been calculated using data provided by 13, 1 and 3 CFS' respectively.

Table 3: Transit Time of Import Containers

Particulars	JNP		Mundra		Chennai	
	Road	Rail	Road	Rail	Road	Rail
Average time taken (hr)	8:46:12	61:44:26	0:57:36	84:39:25	1:35:01	32:51:32

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 4 CFS'.

Table 4: Transit Time of Export Containers

Particulars	JNP		Mundra		Chennai	
	Road	Rail	Road	Rail	Road	Rail
Average time taken (hr)	16:22:53	62:45:24	NA	76:07:59	NA	26:56:37

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, CFS or 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 importers/customs brokers 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)

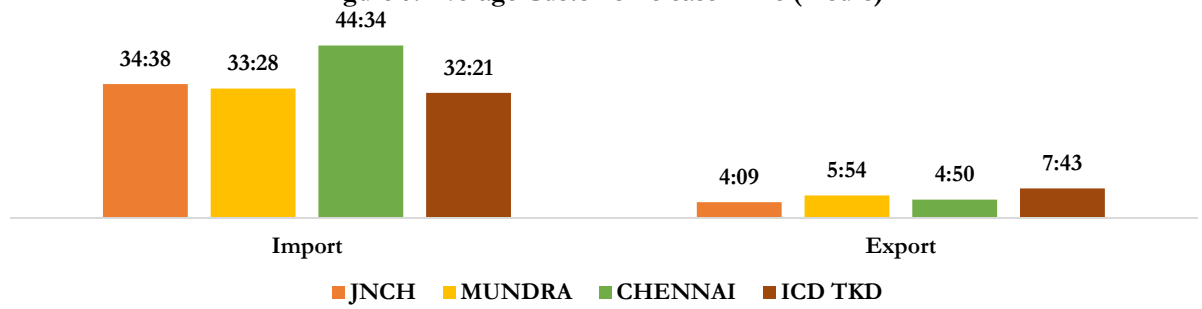


Figure 8: Share of RMS Facilitated Bills of Entry

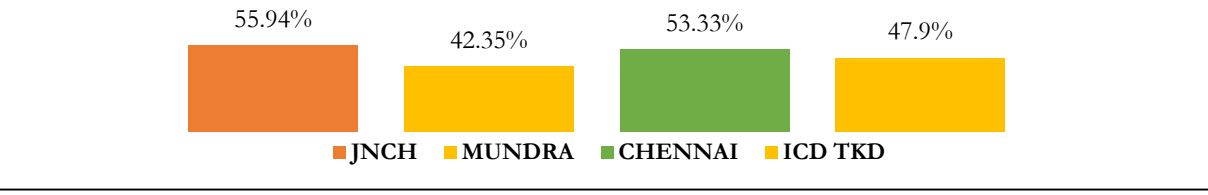


Figure 9: Share of Examined Bills of Entry and Containers

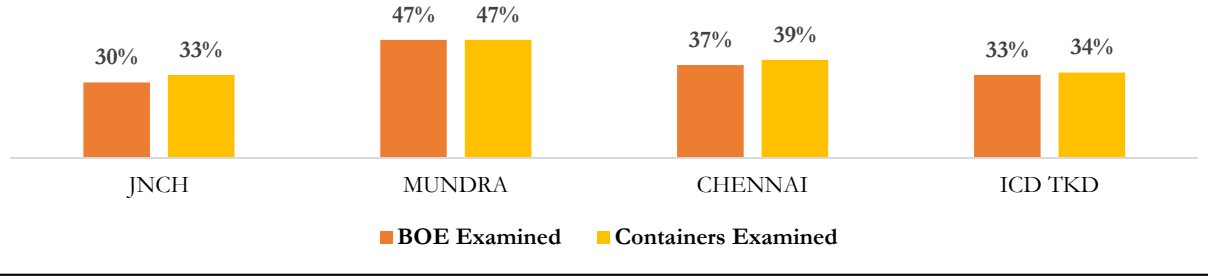


Figure 10: Status of BOE JNCH

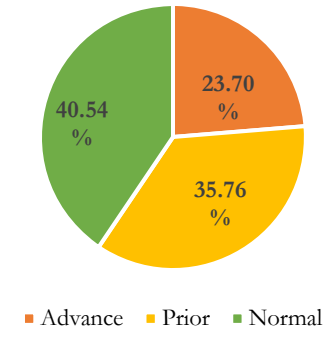


Figure 11: Status of BOE Mundra

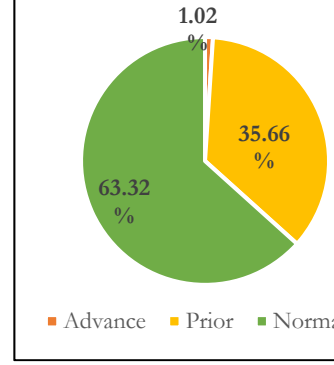
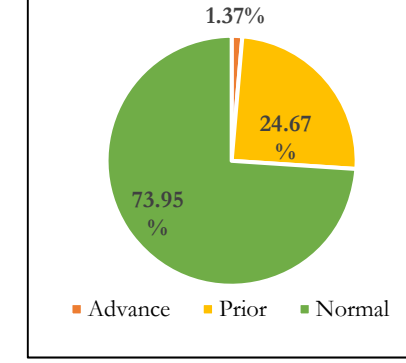


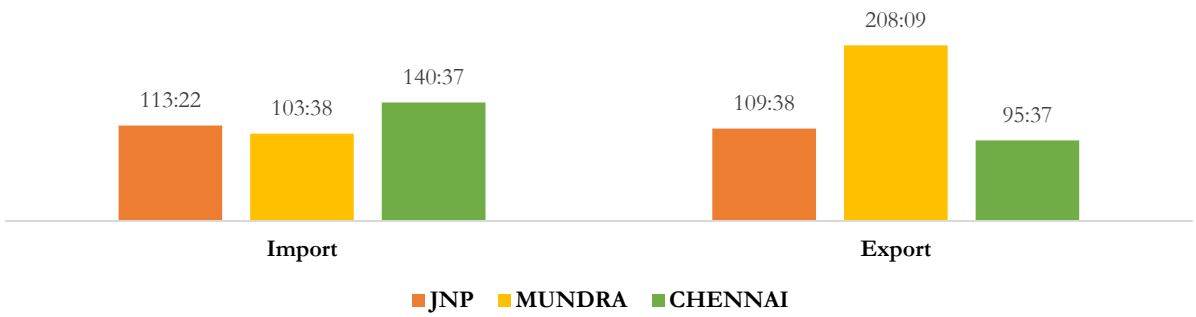
Figure 12: Status of BOE Chennai



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 lines taking place. The list of CFS' along with their dwell time figures have been provided in the annexure.

Figure 13: Average CFS Dwell Time (Hours)



6.7. Inland Container Depot (ICD)

6.7.1. Inland Container Depot 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)	**144:42:10**
ICD Time Export (Arrival – Dispatch)	**77:55:07**

6.7.2. Inland Container Depot Whitefield

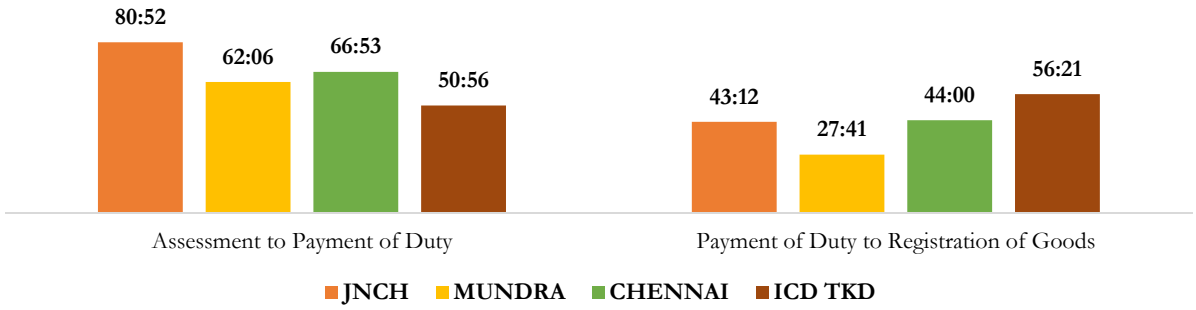
The overall dwell time of containers at ICD Whitefield that are exported and imported through Chennai Port has been computed as the weighted average of overall dwell time figures for all the different categories under analysis viz. green channel factory de-stuffed/stuffed containers, non-green channel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

Table 6: ICD Whitefield Dwell Time	
ICD Time Import (Arrival – OOC)	**161:00:44**
ICD Time Export (Arrival – Dispatch)	**93:47:38**

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 custom 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)

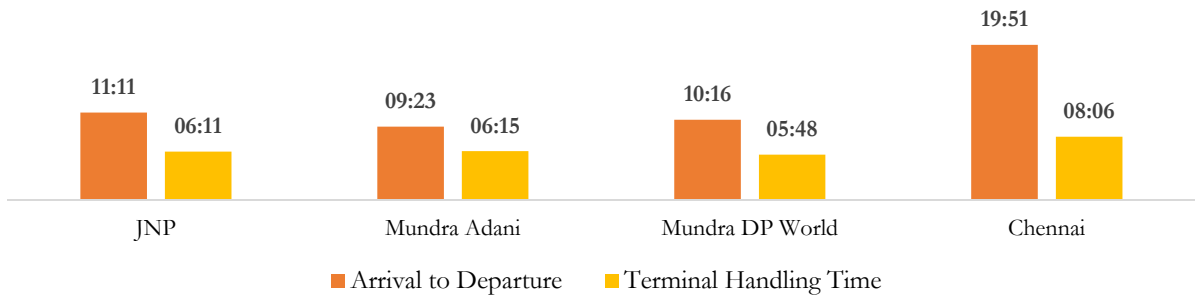
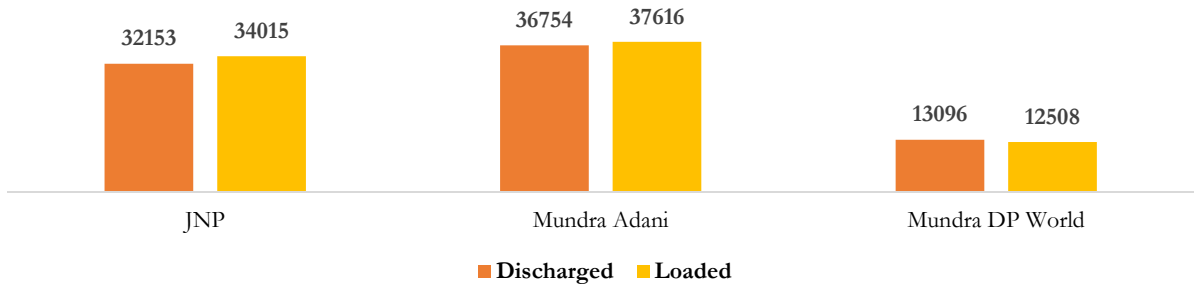


Figure 16: Number of Containers Discharged and Loaded



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 7.

Table 7: Average Time Taken for Generation of Delivery Orders by Shipping Lines

Particulars	JNP	Mundra	Chennai
Total no. of DO	**15,425**	**819**	**5,011**
No. of DOs prior to OOC	4,708	310	706
No. of DOs given post OOC	7,307	129	3,457
No. of DOs received on same day as OOC	3,410	380	848
Average time taken from CFS gate-in to receiving delivery order	**169:43:39**	**96:09:11**	**168:50:37**

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 erstwhile 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, Food Safety and Standards Authority of India (FSSAI) for JNP and Chennai and Drugs Controller for Chennai. 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 8: AQCS Release Time		
Particulars	**AQCS (JNP)**	**AQCS (Mundra)**
Total number of entries (n)	**490**	**188**
Average Time taken from Application to NOC for all BoEs (hr)	19:56:01	4:46:06
Total number of BoEs	489	188
BOEs for which sample was collected	179	14
Average Time taken from Application to NOC for sample collected BoEs	185:08:34	NA
BoEs for which provisional NOC was issued	192	17
BoEs for which Provisional NOC was issued on the day of application	191	15

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 taken from filing of application to issuance of NOC.

Table 9: FSSAI Release Time (Chennai)			
Particulars	**Sample**	**Non- Sample**	**Not in Scope**
Total number of entries (n)	682	21	42
Total number of BoEs	539	17	33
Average FSSAI Release time (hr)	**147:39:27**	**39:42:09**	**59:37:18**
BoEs for which provisional NOC was issued	51	NA	NA
Average time taken from Application to PNOC for which provisional NOC was issued (hr)	**71:10:10**	**NA**	**NA**

Table 10: FSSAI Release Time (JNP)			
Particulars	**Sample**	**Non- Sample**	**Not in Scope**
Total number of entries (n)	3000	352	121
Total number of BoEs	1828	207	68
Average FSSAI Release time (hr)	**165:18:03**	**45:53:13**	**67:37:14**
BoEs for which provisional NOC was issued	576	NA	NA
Average time taken from Application to PNOC for which provisional NOC was issued (hr)	**88:05:30**	**NA**	**NA**

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, scrutiny of the documents to collection of sample and sample collection to the issuance of the NOC. In case of cargo where no sample has been drawn, the release time is taken from filing of application to issuance of NOC.

Table 11: CDSCO Release Time (Chennai)			
Particulars	**Sample**	**Non- Sample**	**Not in Scope**
Total number of entries (n)	2	1,649	488
Total number of BoEs	2	567	316
Average CDSCO Release time (hr)	**348:00:00**	**31:41:05**	**0:02:57**
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, the 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)					
Particulars	**PQIS**	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	14,586	19,891	40	18,235	2,005
Total number of BoEs	1,594	1,523	14	3,151	552
Average time taken (hr)	**178:56:42**	**244:34:24**	**39:23:06**	**144:22:14**	**151:04:46**

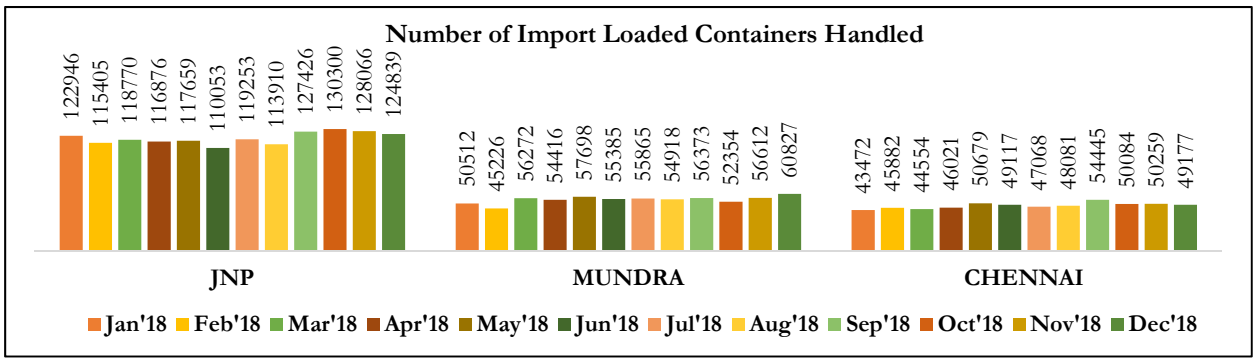
Average Time Taken by PGAs (Mundra Customs)					
Particulars	**PQIS**	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	2,858				
Total number of BoEs	931				
Average time taken (hr)	**144:17:16**				

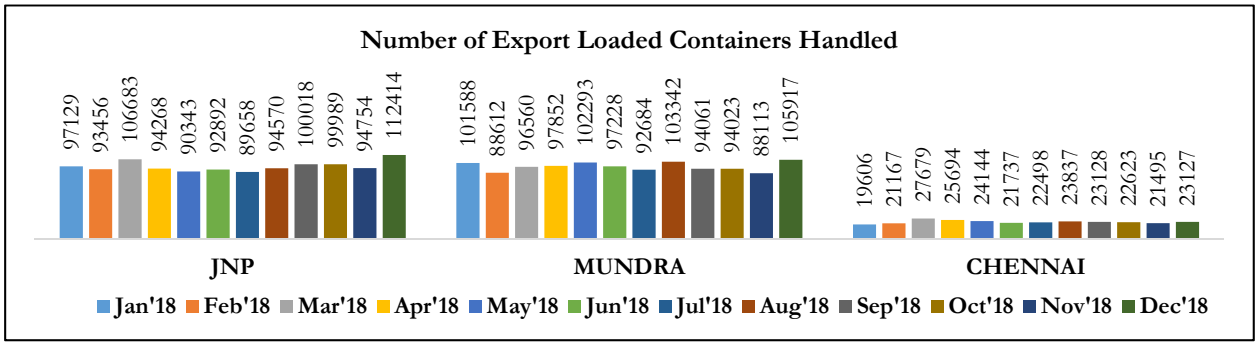
Average Time Taken by PGAs (Chennai Customs)					
Particulars	**PQIS**	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	903	545	10	1,469	1,040
Total number of BoEs	623	364	5	618	395
Average time taken (hr)	**170:28:27**	**165:55:13**	**7:12:00**	**88:34:58**	**121:07:51**

Average Time Taken by PGAs (ICD TKD Customs)					
Particulars	**PQIS**	**FSSAI**	**WCCB**	**CDRUG**	**AQCS**
Total number of entries (n)	18,369	2,989	2	1,811	439
Total number of BoEs	178	111	2	141	73
Average time taken (hr)	**273:27:25**	**194:13:11**	**203:23:00**	**176:52:53**	**131:09:07**

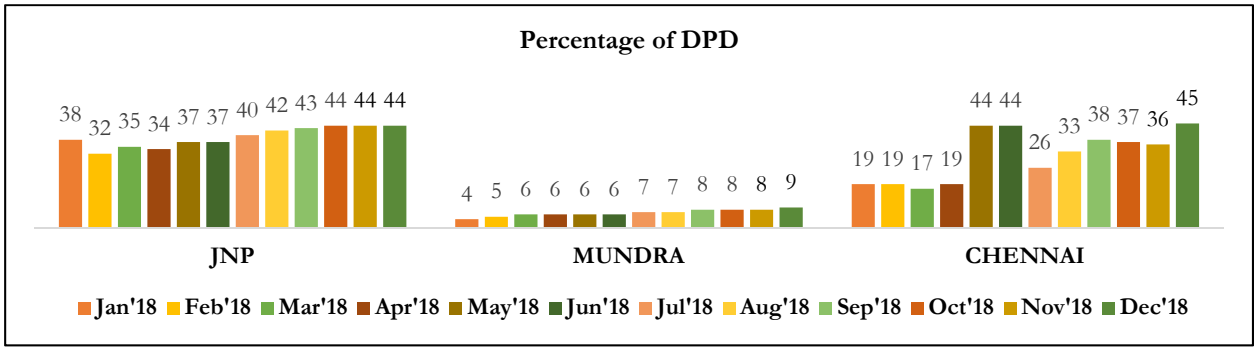
7. Trend Analysis

Volume of EXIM Cargo Handled

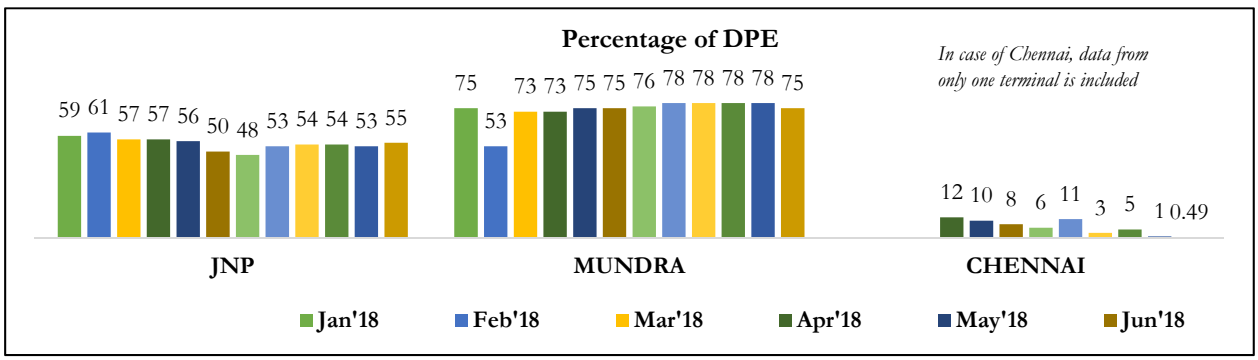




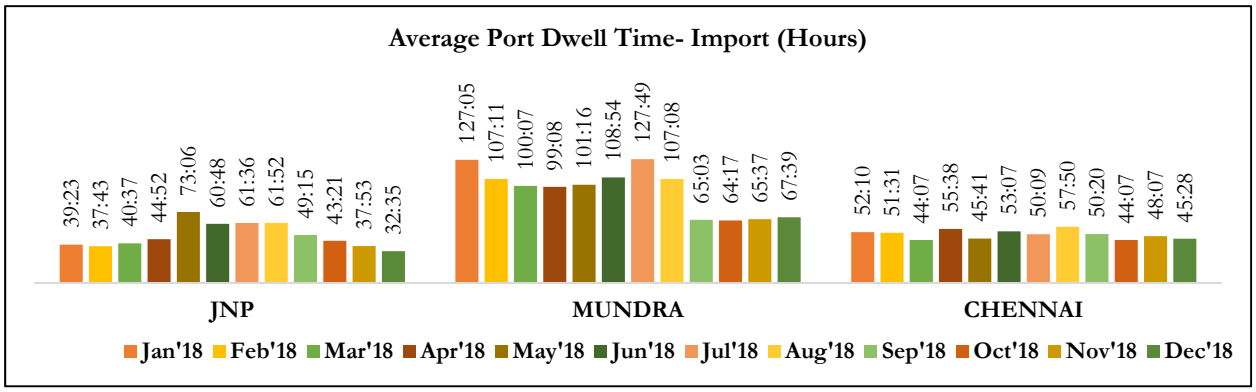
Share of DPD

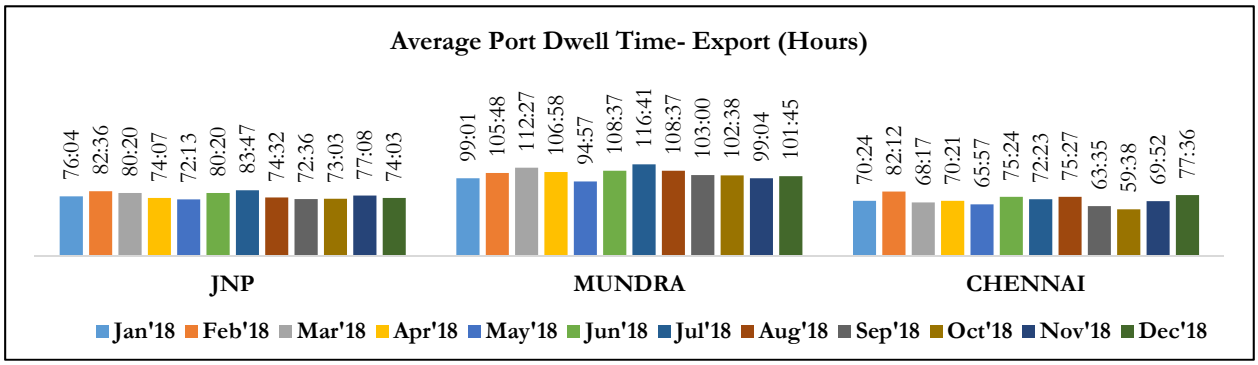


Share of DPE

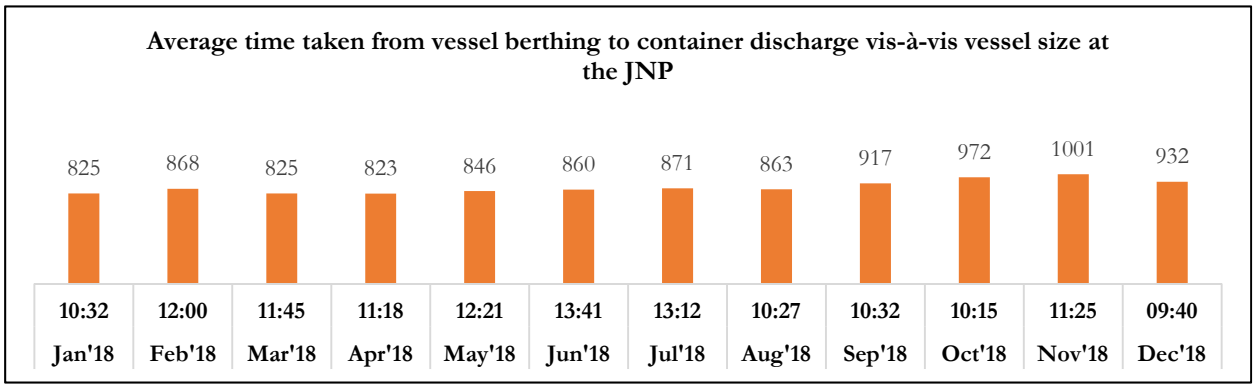


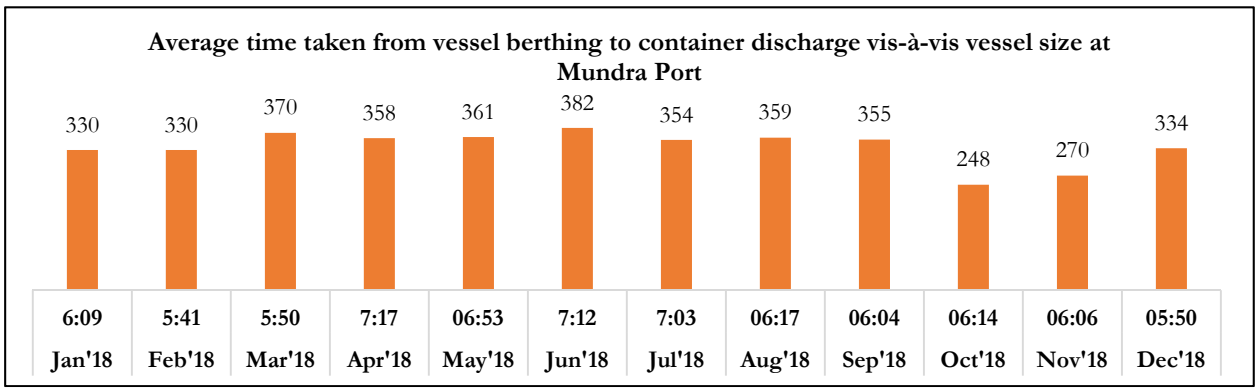
Port Dwell Time

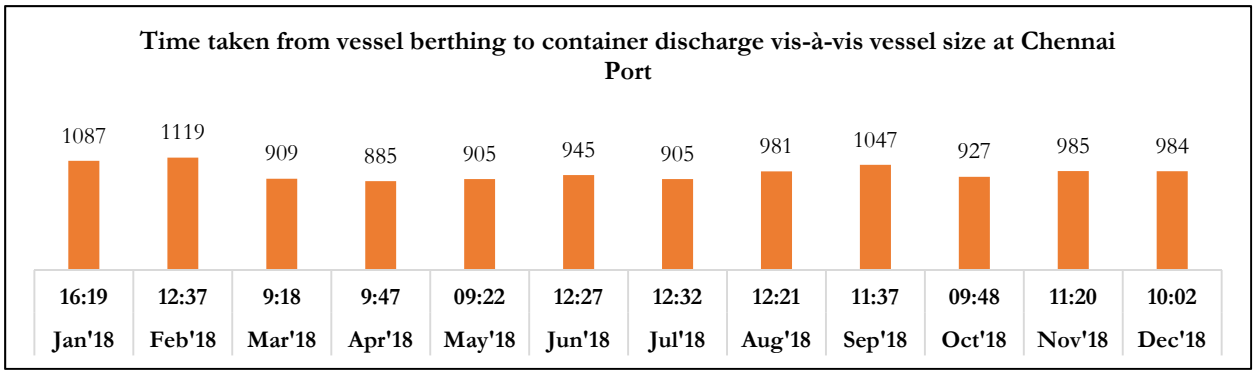




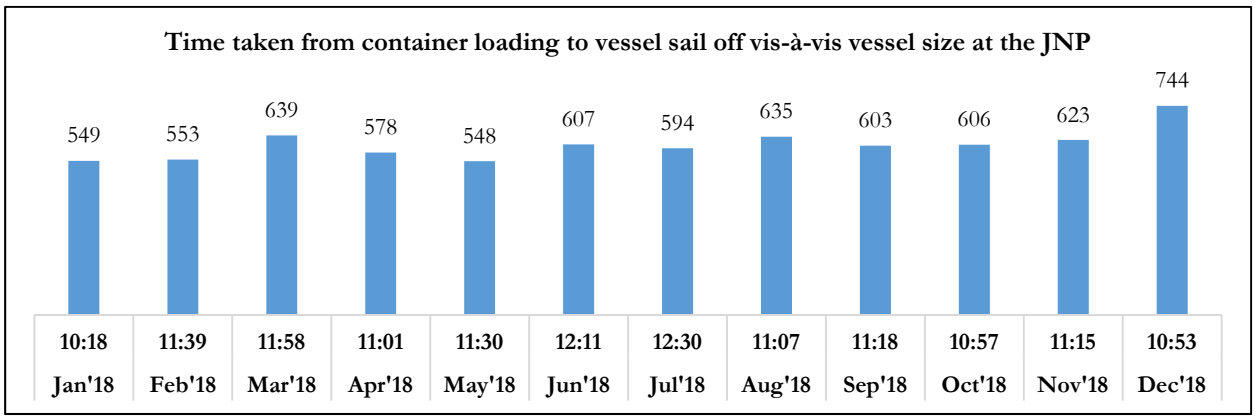
Berth Efficiency – Import

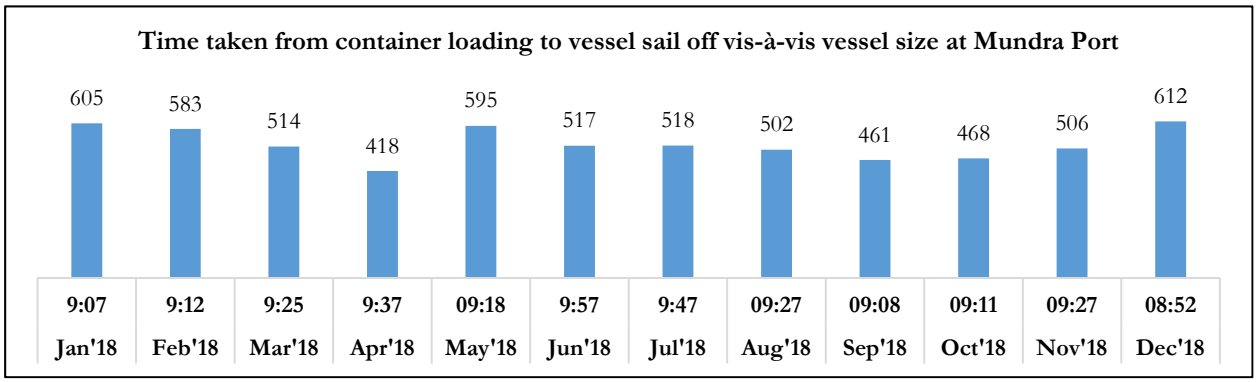


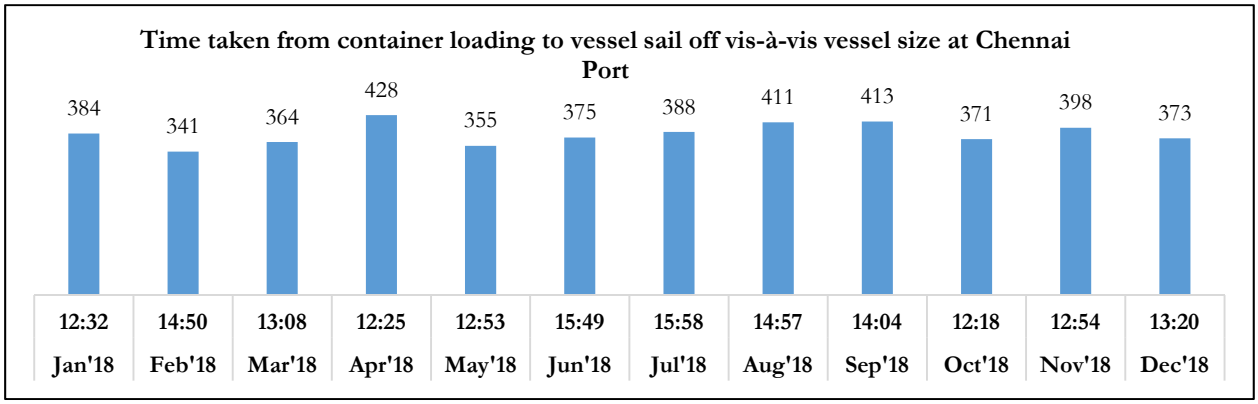




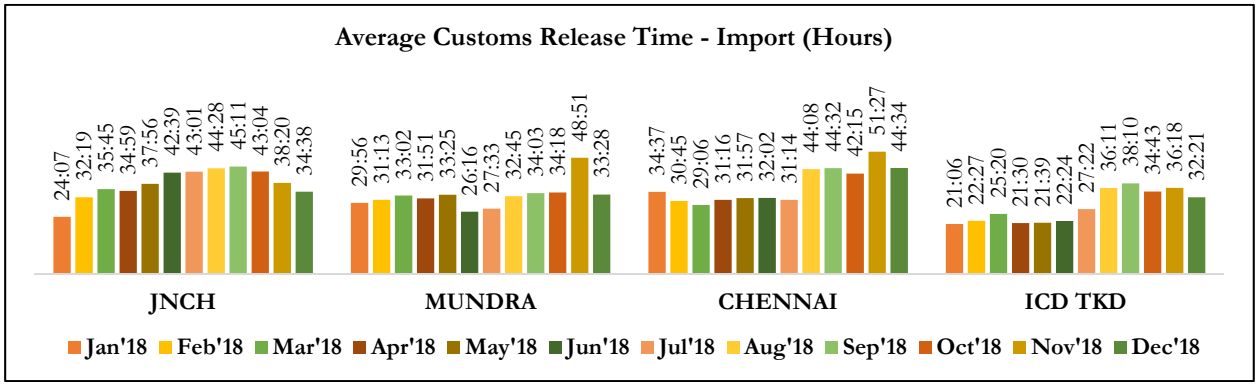
Berth Efficiency – Export

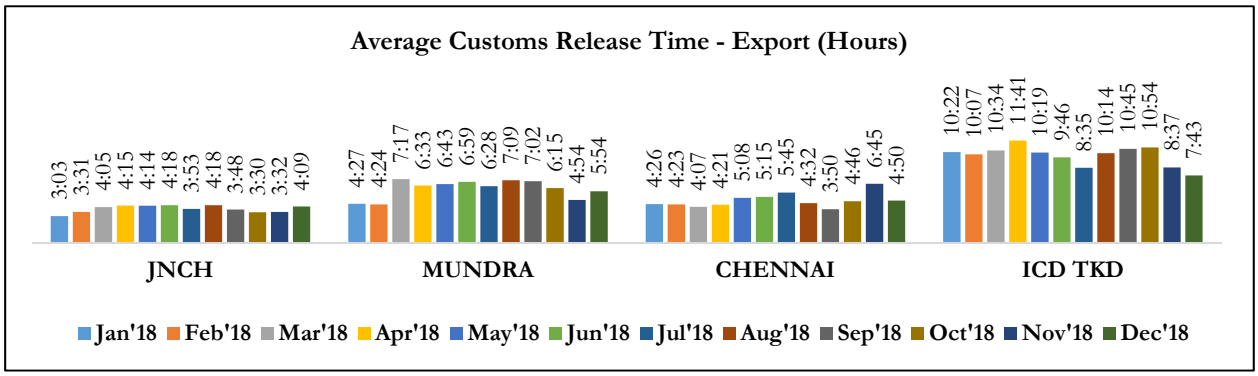




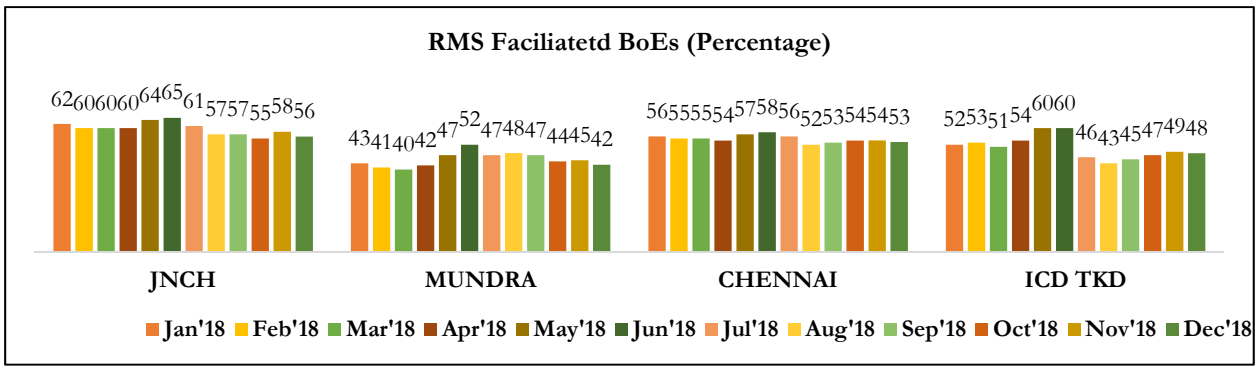


Customs Release Time

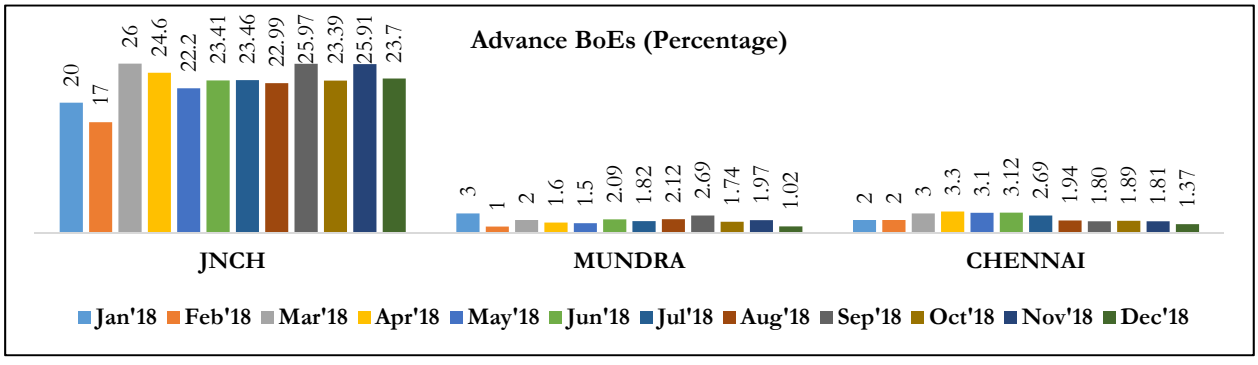




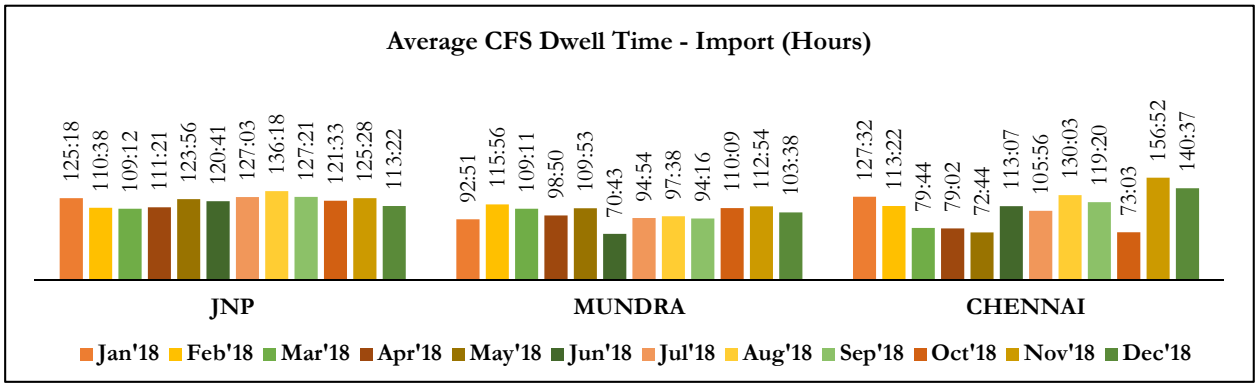
Share of RMS facilitated BoEs

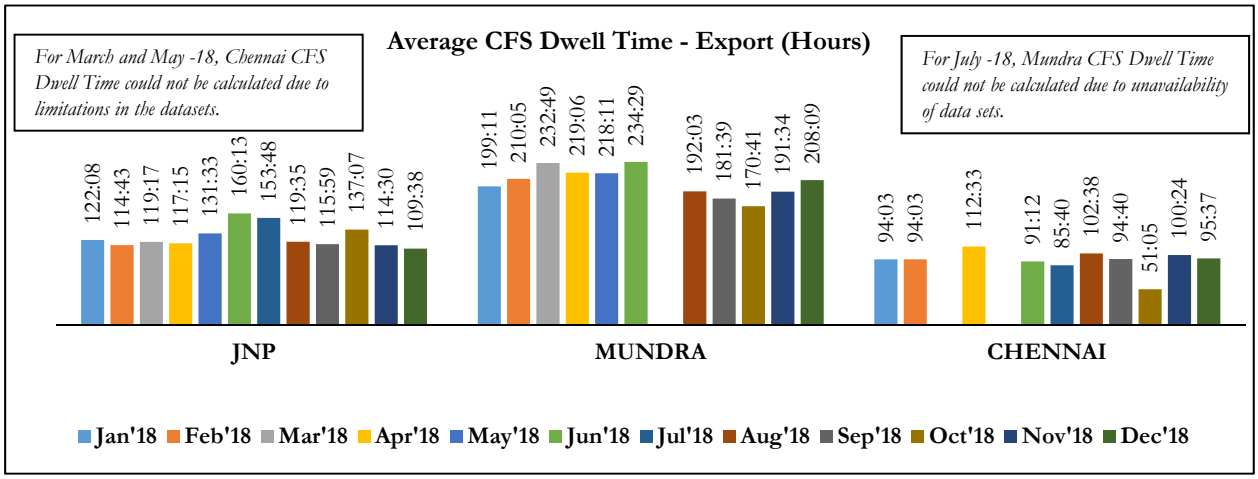


Share of Advance BoE

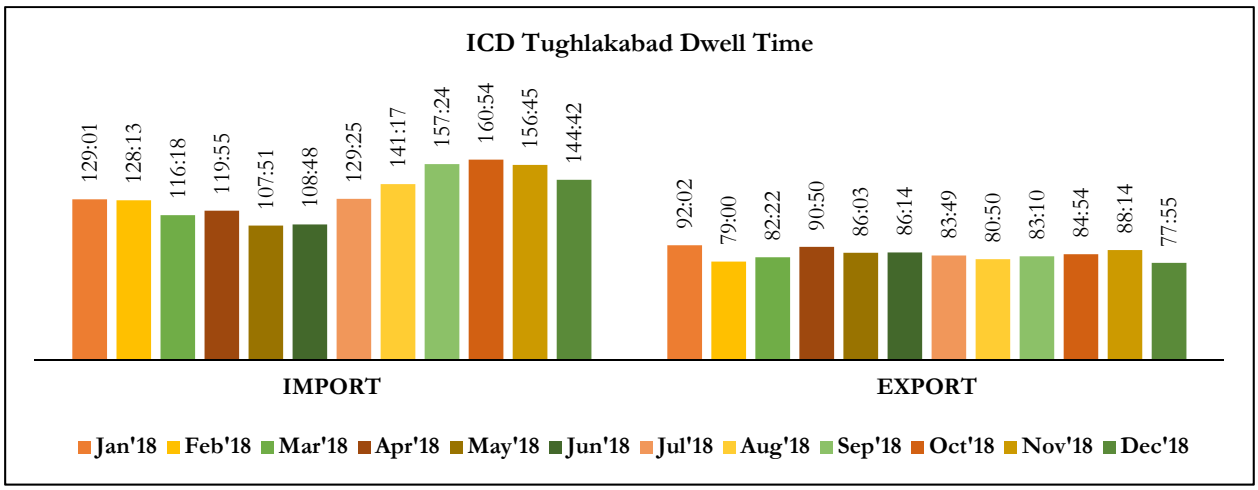


CFS Dwell Time

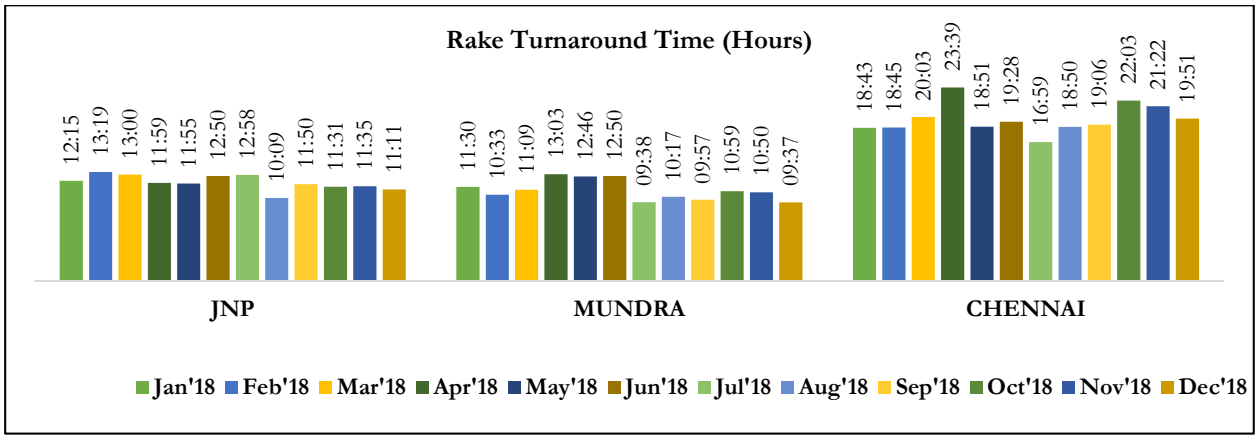


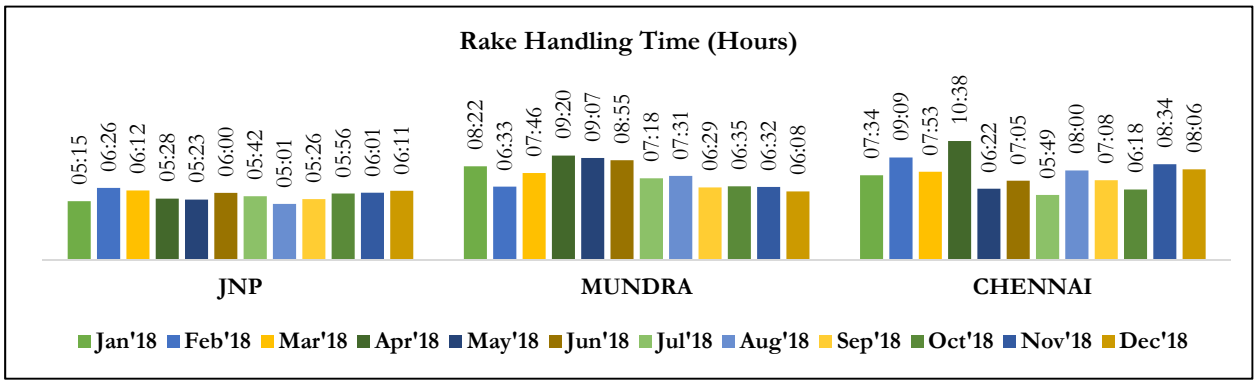


ICD TKD Dwell Time

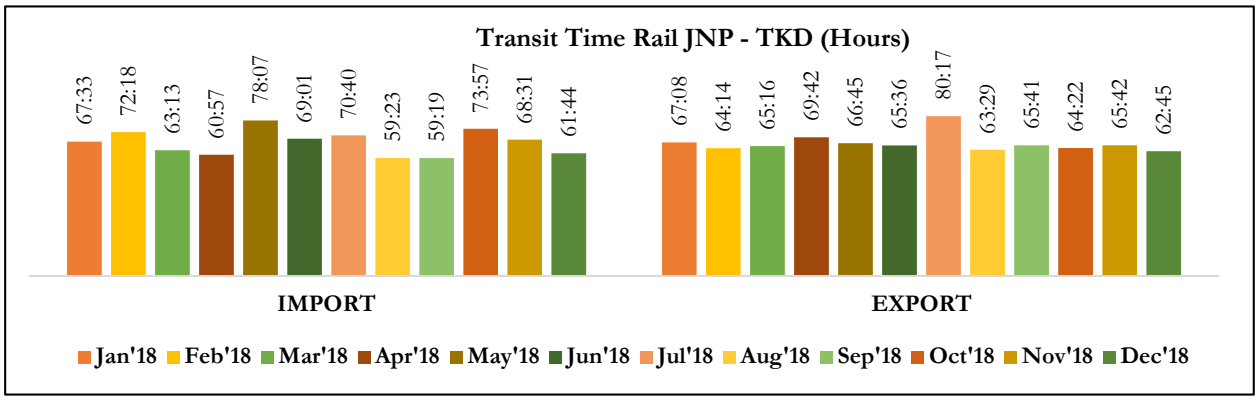


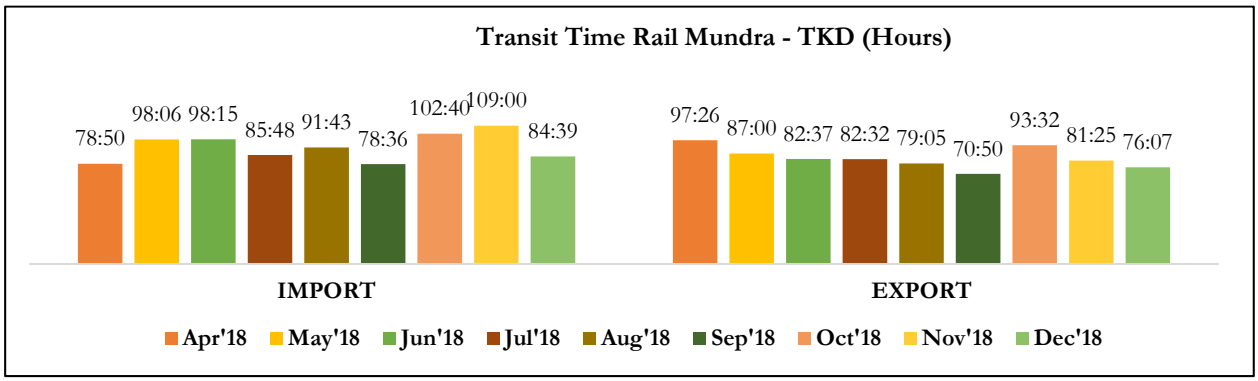
Rake Handling





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	148
Number of Containers	29,555
RMS Facilitated BoEs	104(70%)
Import Dwell Time (Entry Inward to OOC)	85:40:29
Customs Release Time	50:27:25

Export Timeline of Electrical Machinery to US	
Particulars	**Value**
Number of SBs	561
Number of Containers	2,406
Customs Release Time	2:32:59

Number of Containers Handled by Ports EXIM

Number of Loaded Containers Terminal-wise			
Port	**Terminal**	**Export**	**Import**
JNP	JNPCT	16,227	26,927
	GTICT	41,936	53,227
	NSICT	16,959	9,521
	NSIGT	29,436	22,460
	BMCT	7,856	12,704
Chennai	CCTL	12,671	14,782
	CITPL	10,456	34,395
Mundra	ACMTPL	15,664	9,188
	AICTPL	38,604	20,833
	AMCT	29,974	16,092
	MICT	21,675	14,714
Total		241,458	234,843

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	26927	11:10:14	26892	30:45:37
	GTICT	53227	9:22:55	52030	33:15:50
	NSICT	9520	6:00:34	9521	32:13:56
	NSIGT	22460	11:54:54	22460	32:18:21
	BMCT	12704	6:27:54	12670	34:33:25
Chennai	CCTL	14782	8:51:57	14782	43:16:15
	CITPL	34395	10:33:23	33712	46:26:26
Mundra	ACMTPL	9188	6:19:32	8808	69:47:33
	AICTPL	20833	7:07:00	19275	77:49:43
	AMCT	16092	4:37:28	15482	54:36:37
	MICT	14714	5:05:32	14554	66:47:05

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	16227	70:57:23	15581	15:26:59
	GTICT	41936	67:13:12	41933	10:54:13
	NSICT	16959	76:41:54	16957	8:56:09
	NSIGT	29304	80:06:35	29436	9:32:12
	BMCT	7853	88:43:55	7855	11:07:10
Chennai	CCTL	12671	95:08:52	12665	13:29:52
	CITPL	10456	56:20:05	10456	13:08:46
Mundra	ACMTPL	15664	103:58:01	15664	9:23:20
	AICTPL	38604	105:13:30	38604	10:21:04
	AMCT	29974	97:29:47	29974	8:13:11
	MICT	21675	99:52:42	21675	6:47:01

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 Annex	3,450	3,050	73:55:42	2,912	14:02:38	2,995	79:59:11
	Allcargo Logistics	28	26	58:57:31	21	2:17:09	25	47:47:21
	Ameya Logistics	2,382	23,81	93:55:10	652	86:10:50	2,150	105:22:34
	APM Main & Annex	5,071					3,825	118:05:47
	Balmer Lawrie	1,694	1,653	125:58:15	1,679	33:12:19	1,658	158:51:59
	EFC logistics	1,166	1,166	61:35:53	154	32:43:40	852	63:06:05
	Globicon Terminals	2,602	2,570	86:07:45	2,222	37:08:42	2,233	116:14:56
	JWC Logistics	1,125	1,106	97:27:31	645	48:34:41	993	115:42:50
	JWR Logistics	14	14	177:10:17	8	90:12:30	13	158:23:18
	Kerry Indev Logistics	1,096	526	105:37:39	1	8:39:42	922	83:15:11
	MICT - ULA	3,212	1,882	108:45:42	722	114:23:35	2,565	117:02:52
	Seabird Marine Services	3,245	3,245	107:14:01	566	114:05:58	2,235	113:21:39
	Vaishno Logistics	949	948	122:19:31	335	53:33:29	858	118:34:19
	Apollo Logisolutions	1,778	1,732	148:00:24	324	89:41:32	1,156	151:31:16
	Ashte Logistics	1,954	1,954	73:15:54	1,504	31:46:17	1,829	93:17:02
	Continental Warehousing	1,580	1,553	99:03:36	1,109	32:52:22	1,436	115:14:12
	Oceangate Container Terminals	1,695	1,665	135:18:56	276	82:39:34	1,293	132:10:37
	Speedy Multimodes	2,020	1,954	111:08:16	611	72:19:45	1,776	120:33:12
	GDL	1,981	1,955	108:51:12	1,968	18:48:18	1,938	126:30:50
	Punjab Conware	2,227	2,205	113:07:16				
Chennai	All Cargo	5,580	5,216	71:19:02	5,295	139:22:04	5,326	203:25:09
	CWCNSL (R)	935	405	57:43:07	405	25:04:00	935	79:35:52
	CWCNSL (M)	1,018	906	65:40:08	1,018	0:00:00	906	65:40:08
	ECCT	1,993	631	75:57:20	620	22:24:46	1,758	87:46:05
	GDL	3,048	1,293	72:59:51	842	31:46:53	1,848	77:33:12
Mundra	Mundra CFS	819	819	98:47:27	222	42:58:25	733	97:09:46
	Allcargo Logistics	2,388	2,272	101:15:49	1,822	23:35:30	2,208	105:47:29

CFS Process Timelines – Export

CFS Process (Export)								
Port	**CFS**	**Entries**	**N**	**ECO to STUFF**	**N**	**STUFF to MO**	**N**	**ECO to GO**
JNP	Allcargo Annex	1,884	1,873	85:29:29			1,871	101:45:15
	Allcargo Logistics	250	249	139:16:51			249	172:18:58
	Ameya Logistics	435	435	96:00:45	435	18:55:24	435	117:10:21
	Balmer Lawrie	345			345	0:00:00		
	EFC logistics	518	481	144:03:45	511	26:01:14	472	160:49:29
	Globicon Terminals	471	470	96:03:51	471	2:38:01	470	127:21:42
	JWC Logistics	4,588			3,420	28:32:17		
	JWR Logistics	5,010			4,978	6:30:32		
	Kerry Indev Logistics	28	28	0:00:00	27	20:29:44	28	54:38:00
	MICT - ULA	2,693			2,675	49:09:51		
	Seabird Marine Services	681			486	46:00:29		
	Vaishno Logistics	887			886	74:21:49		
	Apollo Logisolutions	1,615	1,502	87:16:13	1,599	24:38:05	1,602	130:46:51
	Ashte Logistics	549			549	3:14:06		
	Continental Warehousing	1,026	1,023	128:44:34	1,026	15:45:57	1,022	150:49:26
	Oceangate Container Terminals	976	937	116:34:05	487	50:00:02	930	153:35:43
	Speedy Multimodes	1,467			1,270	42:30:51		
	GDL	8,453	8,436	93:35:56	8,433	7:20:44	8,429	108:49:17
	Punjab Conware	17,062	17,022	81:16:23	17,019	15:05:41	17,015	101:07:23
Chennai	ALLCARGO	3,738	3,738	103:27:43	3,738	14:31:09	3,738	111:36:36
	Calyx CFS	670			669	14:06:28		
	CWCNSL (R)	1,029	1,029	37:12:04	1,029	0:07:00	1,029	37:31:40
Mundra	Mundra CFS	3,348	3,189	189:25:00	1,934	31:15:39	3,185	221:45:56
	Allcargo Logistics	1,372	1,337	142:21:35	1,360	28:27:10	1,331	175:36:00

ICD Process Timelines- Import

ICD Cumulative (Import)								
Number of Containers	**N**	**GC-FAC**	**N**	**Non-GC-FAC**	**N**	**Warehouse**	**N**	**Direct**
Arrival to EJO			1,288	83:09:01	68	81:31:30	169	134:36:34
EJO to DJO					86	63:38:37		
DJO to De-stuffing					86	4:20:34		
EJO to OOC			1,303	75:44:45			167	87:31:59
De-stuffing to OOC					61	76:44:40		
OOC to DJO							162	55:06:00
OOC to Gate pass	1,501	27:54:33	1,289	17:06:16	69	71:20:13		
DJO to Gate Pass							171	3:37:58
Gate Pass to Departure	1,547	24:48:44	1,303	18:01:08	86	2:34:55	172	3:08:35
Arrival to OOC	**1,521**	**126:17:04**	**1,282**	**155:37:44**	**85**	**173:38:10**	**167**	**213:51:05**
Arrival to Departure	1,516	176:33:23	1,277	188:18:32	83	220:39:12	167	271:02:16

ICD Process Timelines- Export

ICD Cumulative (Export)						
Number of Containers	**N**	**GC-FAC**	**N**	**Warehouse**	**N**	**Direct**
Arrival to CRN	445	20:56:18				
Arrival to LEO			289	35:52:53	11	4:55:14
CRN to LEO	445	15:46:53				
LEO to Loading	445	20:00:58				
LEO to Stuffing			289	26:04:27	11	1:23:16
Stuffing to Sealing			281	10:12:06	10	0:52:47
Sealing to Loading			289	36:22:23	11	37:10:14
Loading to Dispatch	444	1:18:10	287	1:40:21	9	4:10:18
Arrival to Dispatch	**445**	**58:02:06**	**289**	**109:42:22**	**11**	**47:09:16**

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	490	489	481	154:55:38	173	0:00:00	14	180:00:00	308	0:14:02	301	19:56:01
AQCS Mundra	188	188	186	116:54:12	14	15:25:43	NA	NA	172	0:00:00	151	4:46:06

FSSAI Process-wise (Chennai)						
Process	**Sample**		**Non-Sample**		**Not in Scope**	
	N	Avg. Time	N	Avg. Time	N	Avg. Time
BoE to Application	678	75:02:57	21	66:28:47	41	145:37:13
Application to Scrutiny	682	29:51:41	21	39:14:04	42	59:31:41
Scrutiny to NOC	NA	NA	21	0:28:05	42	0:05:37
Scrutiny to Payment	682	23:04:56	NA	NA	NA	NA
Payment to Sample	234	35:33:26	NA	NA	NA	NA
Sample to NOC	681	82:14:20	NA	NA	NA	NA
Application to NOC	NA	NA	21	39:42:09	42	59:37:18
Total Time	**682**	**147:39:27**	**21**	**39:42:09**	**42**	**59:37:18**

FSSAI Process-wise (JNP)						
Process	**Sample**		**Non-Sample**		**Not in Scope**	
	N	Avg. Time	N	Avg. Time	N	Avg. Time
BoE to Application	2976	108:25:28	352	137:24:05	108	230:38:59
Application to Scrutiny	2999	29:10:02	352	24:09:44	121	43:18:18
Scrutiny to NOC	NA	NA	333	23:02:18	121	24:18:56
Scrutiny to Payment	2989	30:18:42	30	37:26:30	15	41:40:04
Payment to Sample	2049	38:59:36	NA	NA	NA	NA
Sample to NOC	2981	97:08:25	NA	NA	NA	NA
Application to NOC	NA	NA	352	45:53:13	121	67:37:14
Total Time	**3000**	**165:18:03**	**352**	**45:53:13**	**121**	**67:37:14**

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*		