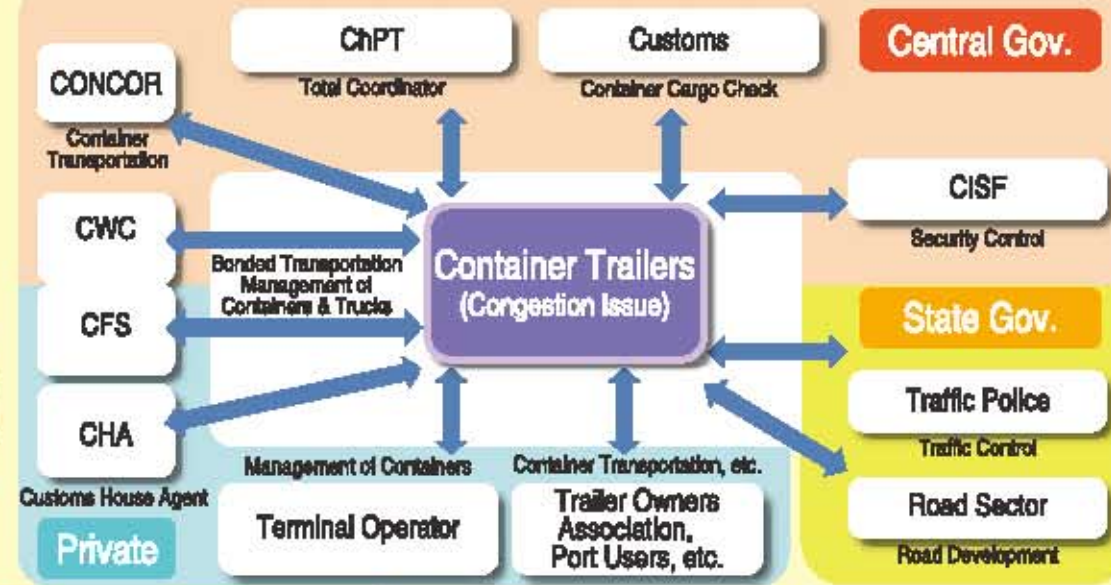


Outcomes (Part 2)

Enhanced Cooperation among Concerned Parties



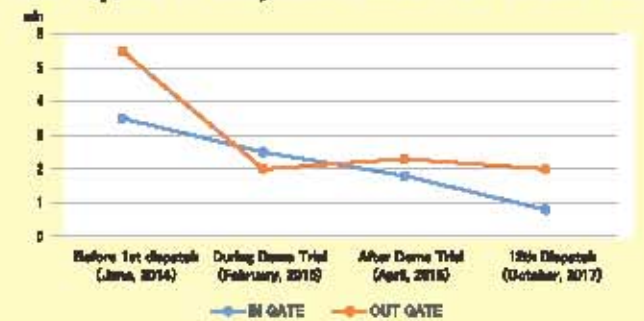
Congestion related Information made available on Web-Portal

Processing Time at Gate Reduced to 25% to 50% !!!

Lead Time among CFS/Zero Gate (Port Gate No.1)/Terminal

Date	Outside Port		Inside Port	
	CFS to ZeroGate	ZeroGate to CCTL	ZeroGate to CITPL	ZeroGate to Terminal
05/11/2017 (Sun)	01:40	00:14	00:20	00:20
06/11/2017 (Mon)	04:29	02:17	01:56	02:01
07/11/2017 (Tue)	09:38	02:05	02:31	02:20
08/11/2017 (Wed)	11:03	02:25	02:58	02:43
09/11/2017 (Thu)	09:45	03:52	06:10	04:38
10/11/2017 (Fri)	08:22	02:24	04:18	03:19
11/11/2017 (Sat)	08:04	02:13	03:15	02:39
12/11/2017 (Sun)	06:25	03:33	04:03	03:53

Time required for Entry/Exit Procedures at Port Gate No.1

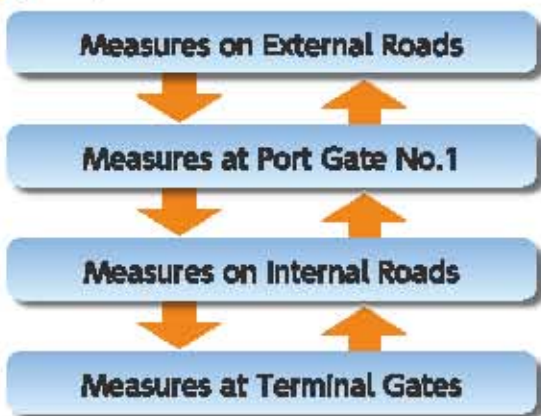


Information published on the homepage of ChPT
 CCTL: Terminal operated by DPW, CITPL: Terminal operated by PSA

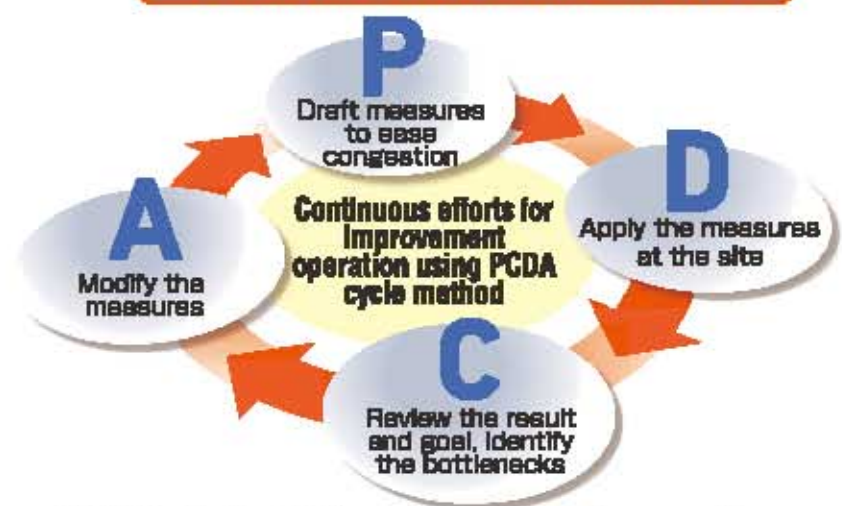
Recommendations toward the Future

- 1 Continuous Observation & Surveys
- 2 Implementation of Coordinated Measures
- 3 Establishment of Sustainable System

Sustainable system will be established in collaboration with the stakeholders.



Implementation of coordinated/concurrent measures



PDCA: Plan-Do-Check-Act (one method for sustainable improvement)

Overcoming Congestion Issues



The Project on Improvement of Chennai Port Operation, INDIA

Project Term: (Phase I) July 2014 to September 2016, (Phase II) February 2017 to February 2018

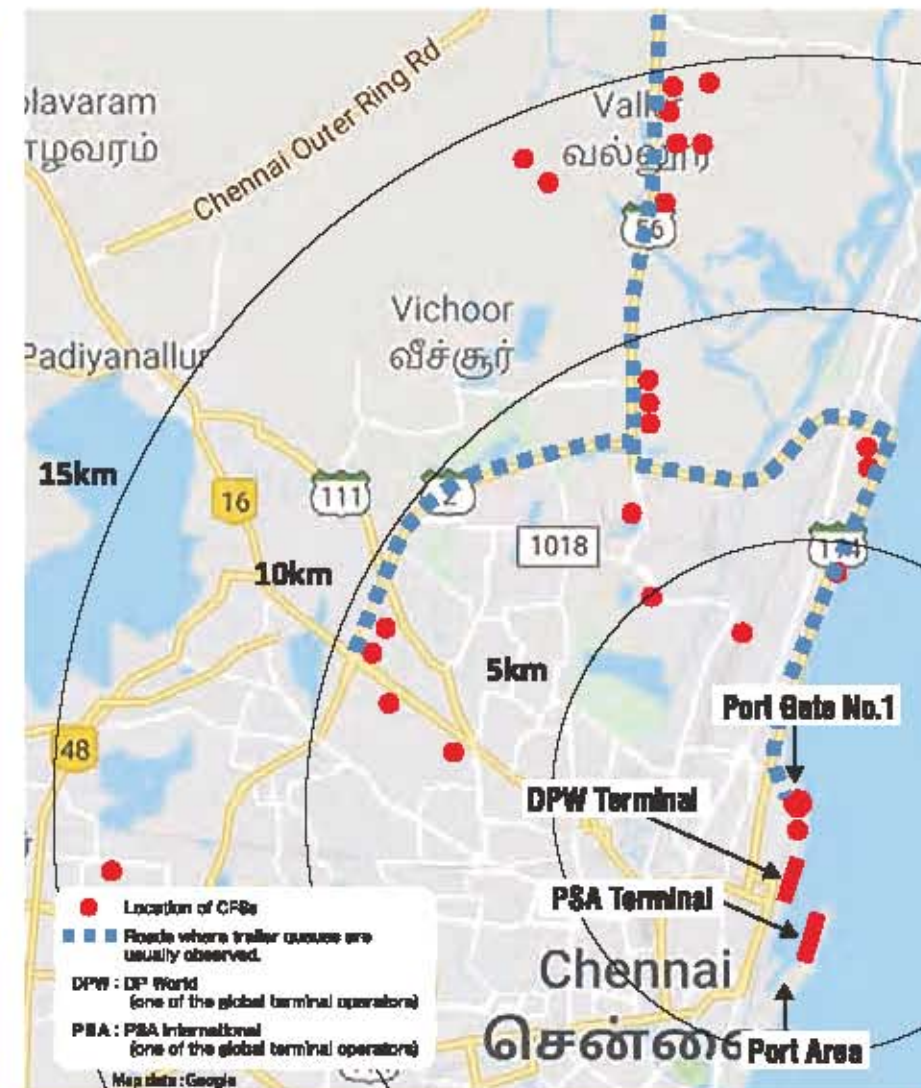


Inefficient port operation, improper traffic control, and insufficient road and port infrastructure



Frequent occurrence of congestion by trailers which hampers the smooth movement of container cargo

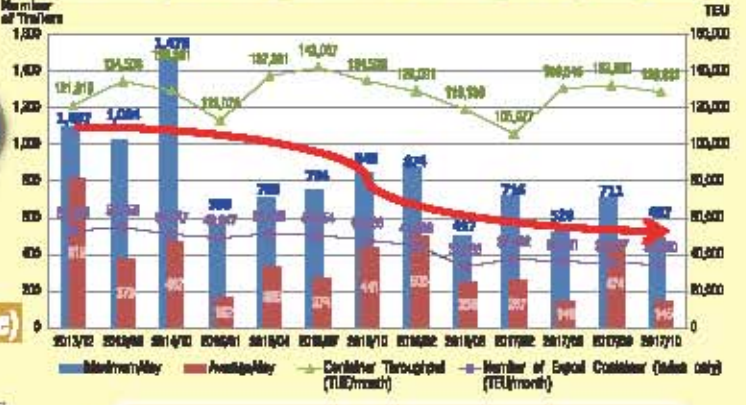
The aim is to reduce congestion inside/outside the port and thereby improve container cargo movements and port operation.



Outcomes (Part 1)

Length of Queues Reduced by Half !!!

Number of Queuing Trailers (Maximum and Average) and Monthly Handling Containers during Every Dispatch



Lead Time from CFS to Port Gate No.1 (average required time)



Lead Time of Export Containers Reduced to 25% to 50% !!!

Measures taken to reduce Congestion

Overall measures

- 0-1 Organizing and Periodical Holding of a Steering Committee
- 0-2 Implementation of Demonstration Trials



- 0-3 Expanding Cooperation with Tamil Nadu State
- 0-4 Proposing Port Infrastructure Improvement



Overall IT-related measures

- 0-5 Introduction of RFID System
- 0-6 Proposing Introduction of Web Portal System
- 0-7 Proposing the RFID based Entry/Exit Control System



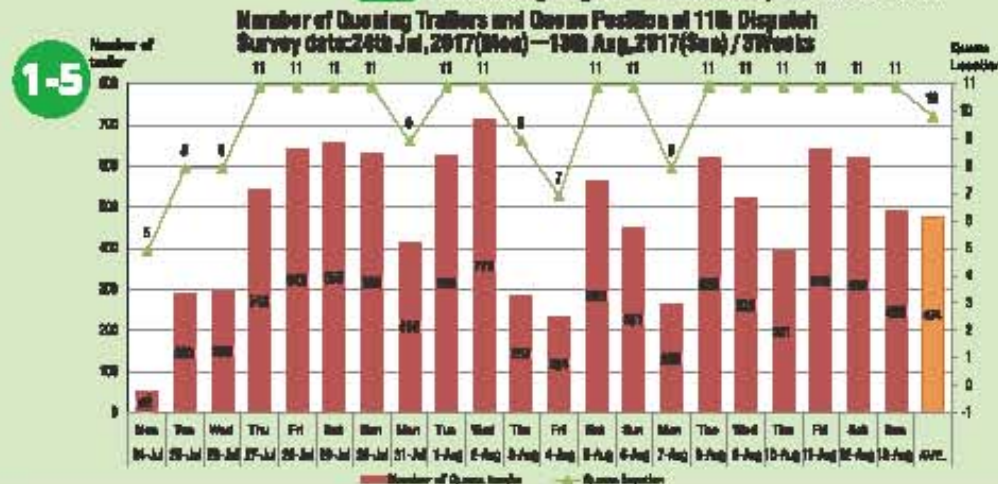
Hardware measures outside

- 1-1 Road Widening and Improvement
- 1-2 Introduction of a Dedicated Lane for Trailers



Software measures outside

- 1-3 Confirming whether Drivers are Carrying the Proper Documents
- 1-4 Providing Traffic Guidance by a Task Force Team
- 1-5 Conducting Regular Traffic Survey and Observation



- ### Hardware measures at gate
- 2-1 Port Gate No.1 Improvement
 - 2-2 Access Road Improvement

- ### Software measures at gate
- 2-3 Improvement of Entry/Exit Procedure
 - 2-4 Survey of Gate Processing Time and Lead Time of Export Container



CFS, Factories, etc.

Container Terminals

Hardware measures inside

- 3-1 Internal Road Improvement
- 3-2 Introduction of Parking Space
- 3-3 Introduction of Dedicated Gates for Empty Trailers and Lane Separation between Empty and Export Trailers
- 3-4 Proposing X-Ray Inspection Area for Import
- 3-5 Proposing Waiting Area near Terminals



Software measures inside

- 3-6 Allocation of Traffic Control Persons
- 3-7 Studying Gate Reception Procedure
- 3-8 Regular Survey of Status Inside the Port and Counting Parked Trailers
- 3-9 Analyzing Trailer Flow In front of Terminals and Proposing Improvements



Empty: Waiting area for empty trailers, Export: Waiting area for export trailers