

Chapter 4

Implementation and Monitoring of Projects



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In a PPP project, the concession granted is usually for a period of 30 years. Once the CA¹³ is signed with the concessionaire, the Conditions Precedent (CP) is to be completed within 90 days. The implementation period of the project usually ranges between 24 to 36 months and is calculated from the date of award of concession.

Out of 61 projects selected for audit, CAs in respect of 41 were entered into as at March 2014, of which 18 projects were completed and 22 projects are under construction and one was terminated (*Annexure I*).

Audit observed delays in implementation of projects. Delays were largely on account of (a) Non-fulfillment of Obligations by Port Authorities, (b) Non-fulfillment of Obligations by Private Partners and (c) Other Issues as detailed below:

4.1 Non-fulfillment of Obligations by Port Authorities

Port Authorities are required to procure environmental clearance and other applicable permits, appoint independent engineer, provide marine and port services, provide required draught as per agreement, maintain all port infrastructure, grant exclusive right to the concessionaire to enter upon, occupy and use the project site and port's assets for the purpose of implementing the project.

4.1.1 Appointment of Independent Engineer (IE)

MCA provides for appointment of a consulting engineering firm or company, through tender, as IE. The cost of IE is to be shared by the concessioning authority and the concessionaire. The concessioning authority should within 30 days from the date of CA forward a list of shortlisted bidders for appointment as IE to the concessionaire and after 15 days thereof if no objection is received from the concessionaire, call for financial bids and select the IE. Considering the key role and responsibility of IEs the terms of reference, process of their selection and, fee structures etc. needs to be standardized across all Major Ports.

Audit observed that there were delays in appointment of IEs (KPT and New Mangalore Port Trust (NMPT)), wide variance in the fees paid for similar nature of work and payments made without work having been started. Review of 18 cases revealed that there was wide variance in payments being made to the IEs. It was noted that an IE was paid ₹0.42 crore (for a project costing ₹495 crore in Chennai Port Trust (ChPT)), while another IE was paid ₹5.20 crore (for the project costing ₹252 crore in MPT).

In one project (ICTT), CoPT did not appoint IE but carried out the activities by itself. In respect of Deep Draught Iron Ore Berth and the Deep Draught Coal Berth at Paradip Port Trust (PPT), ₹3.30 crore was paid to the IE even though the site was

¹³ Concession Agreement is an arrangement with the private developer wherein concession i.e. exclusive license is granted by the Concessioning authority to the Concessionaire for design, engineering, financing, constructing, equipping, operating, maintaining, and replacing the Project/Project Facilities and Services. The concessionaire executes these works and has a right to recover user charges as specified in the Concession Agreement.

not handed over due to lack of environmental clearance and no construction work had started.

While confirming the audit observation as regards KPT and NMPT, Ministry stated (October 2015) that the appointment of IE was not envisaged in the agreement for ICTT project at CoPT as it was signed prior to the issue of MCA. Besides, as the selection of IE was based on bidding process, variation in the fees could not be avoided. As regards the two projects at PPT, Ministry added that a significant portion of the work including inspection, tests, approvals and preparation of designs, drawing, estimates, tender documents, etc. required the appointment of IE.

Ministry further stated that the recommendation of audit for standardization of Terms of Reference, Fee Structure etc. for IE would be considered.

4.1.2 Environmental Clearance

As per the MCA, procurement of environmental clearance for the project was one of the conditions precedent to be fulfilled by the concessioning authority. A model time frame of 51 weeks from application to final receipt of environmental clearance had been envisaged.

We however noted delays in obtaining environmental clearance as detailed below:

Table 4.1

Sr. No.	Project Name	Date of CA	Date of receipt of EC	Remarks
1	Multi Cargo Berth 5 and 6 at MPT	04/1999	01/2001	Though the CA was signed in April 1999, ABGGPL applied for the environmental clearance of the project in March 2000 and the clearance was received in January 2001. It was only after a lapse of 12 months that the concessionaire applied for environmental clearance which contributed towards the total delay of 32 months (September 2004) in the commissioning of the project.
2	Marine Liquid Terminal at KPL	11/2004	05/2006	The time taken for environmental clearance was 17 months from the date of CA (from December 2004 to May 2006), against which no time was specified in the CA.
3	Deep Draught Iron Ore Berth at PPT	07/2009		As there was delay in obtaining environment and CRZ and forest clearances from Ministry, which were received in January 2011 and July 2012 with a delay of 11 and 29 months respectively against the 180 days time given in the CA, the Concessionaire (BWOTL) backed out from the project and PPT terminated (September 2013) the CA.
4	Multi Cargo Berth at PPT			Though the project was awarded (July 2010) to Sterlite-Leighton, by the time the environmental clearance was obtained in July 2012, Sterlite-Leighton backed out from the project which was cancelled in September 2013. PPT incurred ₹9.37 crore and ₹0.05 crore for obtaining Environment and Forest & Coastal Regulation Zone (CRZ) clearances, which remained futile.
5	Mechanised Coal Handling Facility at Berth 11 at MPT	01/2013	12/2013	GoI while giving environmental clearance (December 2013) stated that consent for establishment was to be obtained from Goa State Pollution Control Board (GSPCB) before

				the start of any construction work at the site. GSPCB while giving consent (January 2014) to berth no.7 stated that coal and coke handling activity at berth 11 should be shifted to berth 7 and no activity of coal and coke be taken up at berth 11. Thus, the project did not take off.
6	NCB-IV at VO Chidambaranar Port Trust (VOCPT)	04/2013		Though application for environmental clearance was submitted (November 2010) to the Ministry of Environment and Forest (MoEF), clearance is yet to be received (November 2014) even after a delay of three years beyond the normal time of one year.
7	Stand alone Container handling Facility at JNPT	06/2013	03/2014	There was delay of three months on the part of JNPT in obtaining environment clearance beyond the 180 days (by 16 December 2013) given in the CA.
8	Oil Jetty to handle Liquid Cargo and Ship Bunkering Terminal at KPT	11/2013		Though the stipulated time period of 180 days was over by 15 May 2014, environmental clearance was not received yet (August 2015).
9	NCB-III at VOCPT	02/2014		Though application for environmental clearance was submitted (November 2010) to the MoEF, the same is yet to be received (November 2014).
10	Development of Iron Ore Export Terminal at MPT			Though PPPAC approval was received in January 2011, Cabinet Committee on Investments (CCI) approval was not received since MPT could not obtain environmental clearance for the project. Hence the project was discharged in February 2013.

In the above ten cases, though the CAs were signed, due to non-obtaining of environmental clearance;

- two projects had to be discharged; (Sr. No.5 and 10)
- private operators backed out from two projects; (Sr. No.3 and 4)
- commissioning of two projects was delayed; (Sr. No.1 and 7)
- clearance for three projects are awaited and;(Sr. No.6, 8 and 9)
- no time frame was fixed for environmental clearance in respect of one project. (Sr. No.2)

While confirming the audit observation, Ministry stated (October 2015) that instructions were issued (October 2014) by the MoEF & Climate Change (CC) to the ports to prepare Master Plans including all future projects of the port/activities proposed to be undertaken for the next ten years, to grant one time environmental and CRZ clearances. The ports are in the process of preparing the same.

Ports and MoS should ensure that the master plans are prepared and environmental clearance obtained in advance. This would ensure early completion of projects and enthuse private operators to participate in the bidding process.

4.1.3 Delay in handing over of project sites and back up area

As per Article 3.1(b) of the MCA, ports were to hand over physical possession of the project site and back up area/or the port's assets to the concessionaire within the stipulated time indicated in the CA.

Audit observed delays well beyond the stipulated time in handing over of project site/land in 13 cases as listed below:

Table 4.2

Sr. No	Name of Project	Date of CA	Scheduled date of handover	Actual date of handover	Delay (days)	Remarks
Prior to 2008						
1	Marine Liquid Terminal at KPL	10/11/04	10/11/04	09/06/06		The handing over of project site was delayed for 18 months.
2	Container Terminal Berth 11 and 12 at KPT	23/06/06	21/06/08	10/11/08	141	KPT accepted the liability of liquidated damages (LD) of ₹2.82 crore (excluding interest) for delay in handing over of land up to 10 November 2008, by which date even though the land was ready for handing over, ABG Kandla Container Terminal Ltd. (ABGKCTL) refused to take possession.
3	Coal terminal at KPL	14/09/06	29/09/07	06/02/08		The handing over of project site was delayed for four months.
4	Iron Ore Terminal at KPL	23/09/06	29/09/07	06/02/08		

Post 2008						
1	Berth 7 at MPT	22/09/09	21/03/10	16/01/14	790	Port could not hand over the balance land of 9723 sq. mts out of 46126 sq. mts till January 2014, due to delay in shifting of IOCL pipeline. This resulted in delay of 11 months in completion and commencement of commercial operation of the project beyond the normal period of 36 months.

2	Construct ion of Deep Draught Coal Berth at PPT	10/11/09	09/05/10	The land could not be handed over due to litigation on the project land by existing iron ore plot allottees and dispute with Mines Department. Ministry stated (October 2015) that all issues were resolved and the concessionaire was communicated (March 2015) to deposit the license fee and take over the project site.		
3	GCB at VPT	10/06/10	08/10/10	01/07/11	265	Land was handed over in piece meal that was completed by July 2011. The project was commissioned in January 2013 after a delay of three months.
4	WQ-6 at VPT	31/07/10	31/10/10	07/10/11	341	Handing over of land was delayed at the request of concessionaire to match with the date of fulfillment of CP.
5	Multi Cargo Berth 15 at KPT	18/02/11	19/05/11	08/08/11	81	Though KPT delayed the handing over of the site due to non receipt of license fee, the project was commissioned in time (November 2013) and JRE had not claimed LD for delay in handing over of project.
6	EQ-1 at VPT	01/08/11	31/10/11	08/08/12	278	The project was completed in September 2014 after a delay of 10 months from the scheduled date of completion.
7	EQ-1A at VPT	03/02/12	05/05/12	25/10/12	175	Land was handed over in piece meal that started from October 2012 and completed by April 2013. The project is under construction.
8	EQ-7 at VPT	18/05/12	17/08/12	Land was not handed over due to dispute in payment of security deposit.		
9	Oil Jetty for Liquid Cargo and Ship Bunkering Terminal at KPT	16/11/13	15/05/14	The project site has not been handed over yet (October 2015).		

Thus, the delay in handing over of Project Site/ back up area within the scheduled time had delayed the commencement of construction of 12 projects. In three cases (Sr. No.2, 8 and 9) the land was yet to be handed over to the concessionaire.

4.1.4 Other Obligations

4.1.4(i) Failure to provide required draught in the Access Channel

Audit observed that Mumbai Port Trust (MbPT) could not complete the required dredging work due to the slow pace of finalizing the dredging contract and according approval for the revised cost estimate. This has resulted in non-commissioning of the project for Construction of two Offshore Container Terminal berths and Development of Container Terminal in Mumbai Harbour, even after a delay of four years despite an expenditure of ₹401.58 crore (MbPT's share) till October 2014. Similar delays were observed in case of KPT where the required draught of 13 meter in access channel was to be maintained from June 2012 onwards. The concessionaires raised the issue of non-provision of required draught and consequent restriction on berthing of vessel among other issues and did not remit the revenue share, license fee etc.

In case of VPT, a draught of 16.10 meter was committed in the inner harbour. Though, one of the PPP projects (East Quay (EQ)-1) was completed by September 2014, VPT failed to provide the required draught and consequently, the concessionaire could not sail 80000 Dead Weight Tonnage (DWT) vessels (as per CA) to EQ-1 berth and therefore raised the issue of financial non-viability with the port.

MbPT stated (December 2014) that the dredging contract awarded (April 2009) to JSC was terminated (June 2013) due to slow progress in work and sanction from GoI is awaited for the fresh contract with revised cost estimate. KPT replied (January 2015) that the port provided the draught of 13 meter in July 2014. VPT replied (December 2014) that it made all efforts to complete the dredging since 2010 and the work was expected to be completed by March 2015.

Ministry while accepting the audit observation, stated (October 2015) that efforts were being taken to expedite the dredging work. Ministry further added that although there was delay in dredging at MbPT, the delay had no bearing on the commissioning of the project due to financial constraints faced by the BOT operator.

4.1.4(ii) Non recovery of pro-rata dredging cost in respect of Captive Jetty by UPCL (NMPT)

Article 9.2 (a)(vii)(a) of the CA (May 2008) required Udupi Power Corporation Ltd. (UPCL) to reimburse the cost of maintenance of dredging on a pro-rata basis on actual cost of dredging incurred by NMPT in proportion to the traffic handled at the captive jetty of the Project vis-à-vis the total traffic handled at the port. The minimum traffic handled at the port was taken as 2 MMT for the first five years from the date of commercial operation, to be paid within 15 days of raising the invoice. The commercial operation of the project commenced in June 2012. The details of dredging cost recoverable from UPCL are as detailed below: -

Table 4.3

Details	₹ in crore	
	2012-13	2013-14
Total Cargo Handled (in MMT)	37035901	39364363
Cargo handled at Captive Jetty (in MMT)	2581925	2927663
Total dredging cost incurred (₹ in crore)	50.94	44.84
Pro-rata dredging cost (₹ in crore)	3.55	3.34

Audit observed that NMPT did not raise claim to recover the pro-rata dredging cost amounting to ₹6.89 crore for the year 2012-13 and 2013-14.

Ministry stated (October 2015) that a demand for ₹11.33 crore for the period upto 2014-15 was raised, of which ₹10.59 crore was received from UPCL. Balance amount of ₹0.75 crore was under consideration.

4.1.4(iii) Failure to provide Rail connectivity

KPT was liable to provide (Appendix IV of CA) the common road and rail facility outside the licensed premises of Multi Cargo Berths 13 and 15. Though, commercial operation of the two Berths 13 and 15 commenced from February 2013 and November 2013 respectively, KPT could not implement the rail connectivity between the hinterland and port, which restricted faster evacuation of cargo from these berths. RAS Infraport Private Ltd. (RAS) and JRE Infraport Private Ltd. (JRE) raised the issue of non-provision of rail connectivity among other issues and did not remit the license fee, revenue share, LD etc.

Management stated (February 2015) that the rail connectivity between the hinterland and Berth 13 and 15 was awarded to Western Railway, and was likely to be completed by March 2015.

Ministry stated (October 2015) that the delay in completion of rail connectivity was discussed in the inter-ministerial meeting (September 2015) and Railways have indicated that it would be completed by October 2016. Ministry further stated that as both the berths became unviable, rebidding of the project with first right of refusal to the concessionaire was under consideration.

Thus, Port/Ministry admitted its failure to provide the rail connectivity in time as envisaged in the CA. As connectivity with rail and road are life line of movement of cargo/containers, it is required that concerted effort be made between MoS and Ministry of Railways, to ensure that port's obligations to private Partners are not defaulted as in the case of KPT. Such delay has consequential impact on the revenue earning capacity of the private Partner and loss to Port too.

4.2 Non-fulfillment of Obligations by Private Partners

As per Article 3.1 (a), 3.2 and Appendix-8 of the MCA, the concessionaire was to satisfy Conditions Precedent (CP) such as to achieve financial closure, to open and execute escrow account, to furnish performance guarantee, provide copies of resolutions authorizing execution, delivery and performance by the concessionaire, copy of the management contract, certificate on the shareholding pattern, confirmations from members of consortium in respect of compliance to shareholding pattern, financial standing, legal opinion with respect to the authority

of the concessionaire to enter into agreement and its enforceability and to obtain applicable permits as required for commencement of construction works within 90/120/180 days from the date of CA. The award of the concession shall be subject to the satisfaction or waiver of the CP.

It was, however, observed in audit that the concessionaires failed to fulfil these conditions within the specified period and 22 projects were delayed. The delay was as high as 455 days in case of NCB II at VOCPT. The delay in fulfilment of CP led to a consequential delay in commencement of commercial operation of the projects.

4.3 Monitoring

PPP projects normally empower the concessionaire to use public assets for building infrastructure projects and also to levy and collect user charges for the use of such public assets. Therefore, it is the primary responsibility of Major Ports/Government to ensure that the project is completed within the prescribed target date and services being delivered to the users meet the agreed time, cost, quantity and quality standards.

In order to oversee the implementation of the agreed terms and delivery of specified services, Planning Commission (GoI), issued (May 2009) 'Guidelines for Monitoring PPP Projects'. As per the guidelines, a two-tier mechanism for monitoring PPP projects was proposed. A PPP Monitoring Unit (PMU) was recommended at the project level and a PPP Performance Review Unit (PRU) at the Ministry or State Government level. PPP PRU was to be headed by an officer not below the rank of Joint Secretary for monitoring the PPP Projects under its jurisdiction. The PPP PMU has to submit monthly reports to the PPP PRU.

MoS (November 2012) instructed that each PMU at the port level was expected to monitor the project/projects aggregating to the value not exceeding ₹2500 crore. Separate PMUs were suggested for large projects. The personnel of PMUs were expected to spend at least two days during every two months to interact with user representatives at project site.

MoS (February 2015) stated that a dedicated PPP PRU had not been set up in the Ministry. It further stated that as an interim arrangement, Joint Secretary (Ports), in addition to his normal duties, had been functioning (October 2012) as the Head of PPP PRU with a PPP Expert. Additionally, one full time consultant was also engaged as PPP Expert.

Audit observed that monitoring of PPP projects was done at MbPT, VOCPT and KPL through committees/HOD meetings/ Board meetings etc. KoPT and MPT had no separate mechanism to monitor the projects. While KoPT stated (December 2014) that action with respect to setting up of PMU would be taken when the PPP projects take off, MPT stated (January 2015) that a committee had then been formed to monitor the PPP Projects. At NMPT, PMU was formed only after been pointed out by Audit.

Ministry stated (October 2015) that a full fledged PPP Cell has been set up in the MoS, to review the project monitoring reports on PPP projects and deciding on remedial actions to be taken. Ministry further added that in the light of audit observations the effective execution of functions assigned to PPP PMU would be ensured and their monitoring mechanism strengthened.

4.4 Performance

One of the rationale for induction of the Private Sector is that it brings in efficiency in operations as compared to Government management. We examined the efficiency parameters of the facilities that were being run on a PPP mode to verify whether there was indeed any improvement. Our findings are discussed below.

Audit made an attempt to compare the operational efficiency of PPP Berths with similar berths operated by port with reference to the following performance parameters:

Pre-Berthing Detention (in hours): The time during which a ship waits for getting entry into a berth.

Turn-Round Time (in days): Total time spent by a ship since its arrival at the reporting station to its departure from the anchorage for outward journey.

Output per Ship Berth-day (tonnes): The average output of a ship per day measured in tonnes of cargo, i.e. total tonnage handled at berth divided by the total number of berth-days.

Idle Time at Berth (in days): The time when a vessel remains idle at berth expressed as a percentage of the total time of the vessel at berth. This is the time lost due to interruptions in operations as breaks, changeover, etc. reducing the ship output for any reason.

4.4.1 The comparison of performances of PPP berths at JNPT, KPT, VPT and KPL is given below:

4.4.1(i) JNPT

The Performance of container terminals operated by JNPT, Gateway Terminals India Private Ltd. (GTIL) and NSICT for the last five years ending 31 March 2015 were as under:

Sr. No	Parameters	2010-11	2011-12	2012-13	2013-14	2014-15
JNPT Container Terminal						
1	Average Pre-berthing detention on Port Account (in hours) (APBD)	22.80	11.28	13.92	1.2	3.6
2	Average Turn-round time on Port Account (in days)(ATRT)	2.29	1.77	1.96	1.72	1.81
3	Average Output Ship Berth day (in tonnes)(AOSBD)	14171	17681	21538	24933	23980
4	Average non-working time at berth (Idle time in days)(ANWT)	0.14	0.11	0.10	0.08	0.08

NSICT						
1	Average Pre-berthing detention on Port Account (in hours)	5.76	3.12	0.72	0.48	1.68
2	Average Turn-round time on Port Account (in days)	1.39	1.26	1.13	1.09	1.07
3	Average Output Ship Berth day (in tonnes)	31947	32364	30715	28680	26368
4	Average non-working time at berth (Idle time in days)	0.02	0.03	0.02	0.02	0.06
GTICT						
1	Average Pre-berthing detention on Port Account (in hours)	1.20	0.48	0.72	0.96	3.6
2	Average Turn-round time on Port Account (in days)	0.70	0.78	0.91	0.97	1.22
3	Average Output Ship Berth day (in tonnes)	36138	39847	47239	46036	42024
4	Average non-working time at berth (Idle time in days)	0.11	0.10	0.11	0.09	0.09

It is evident from the above that the performance of NSICT was better than the port during 2010-15. The performance of GTICT was also better than that of port except in respect of ANWT during 2012-13 to 2014-15.

4.4.1(ii) KPT

Sr. No	Parameters	2013-14	2014-15
PORT			
1	Average Pre-berthing detention on Port Account (in hours)	23.05	8.56
2	Average Turn-round time on Port Account (in days)	2.09	3.38
3	Average Output Ship Berth day (in tonnes)	7422	8102
4	Average non-working time at berth (Idle time in days)	0.28	0.86
Berth 13			
1	Average Pre-berthing detention on Port Account (in hours)	47.12	2.66
2	Average Turn-round time on Port Account (in days)	6.52	4.50
3	Average Output Ship Berth day (in tonnes)	7438	8048
4	Average non-working time at berth (Idle time in days)	0.63	0.66
Berth 15			
1	Average Pre-berthing detention on Port Account (in hours)	0.00	13.47
2	Average Turn-round time on Port Account (in days)	3.63	5.02
3	Average Output Ship Berth day (in tonnes)	9905	5249
4	Average non-working time at berth (Idle time in days)	0.51	0.47

It could be seen from the above that the Port's performance was better than the PPP operator except for 2014-15 in APBD (berth no.13) and ANWT (berth 13 & 15).

4.4.1(iii) VPT

There are three operational projects at VPT viz., Container Terminal, GCB and EQ-8 & 9. As there was no container berth under port's operation and neither a berth with similar capacity as GCB, the comparison of performance of PPP berths and the port was limited to EQ-8 & 9. Performance in respect of two parameters such as Average Pre Berthing Detention (APBD) in hours and Average Output per Ship Berth day (AOSB) in tonnes only were made available. The same are tabulated below:

Sr. No	Parameters	2013-14	2014-15
WQ-2 (PORT)			
1	Average Pre-berthing detention on Port Account (in hours)	35.99	42.88
2	Average Output Ship Berth day (in tonnes)	10108	10039
EQ-8			
1	Average Pre-berthing detention on Port Account (in hours)	42.52	34.04
2	Average Output Ship Berth day (in tonnes)	12713	10920
EQ-9			
1	Average Pre-berthing detention on Port Account (in hours)	45.34	38.92
2	Average Output Ship Berth day (in tonnes)	11178	9958

During 2013-14 the performance of the port was better in case of APBD, whereas in 2014-15 PPP operator performed better. In case of AOSBD, the performance of PPP operator was better in both the berths, except at EQ-9 in 2014-15 when the port performance was better.

4.4.1(iv) KPL

Sr. No.	Parameters	2010-11	2011-12	2012-13	2013-14	2014-15
CB1-Port berth						
1	Average Pre-berthing detention on port Account (in hours)	0.005	0.005	0.034	0.018	0.020
2	Average Turn-round time on Port Account (in days)	0.082	0.083	0.089	0.088	0.085
3	Average Output Ship Berth day (in tonnes)	21815	32550	29757	29230	45479
4	Average non-working time at berth (Idle time in days)	87	34	53	80	66
CB2-Port berth						
1	Average Pre-berthing detention on port Account (in hours)	0.011	0.098	0.389	0.003	0.022
2	Average Turn-round time on Port Account (in days)	0.077	0.079	0.100	0.076	0.082
3	Average Output Ship Berth day (in tonnes)	22192	48418	19595	14617	19089
4	Average non-working time at berth (Idle time in days)	46	6	32	97	87
CICT- BOT Operator berth						
1	Average Pre-berthing detention on port Account (in hours)	0	0.011	0.020	0.008	0.023

2	Average Turn-round time on Port Account (in days)	0.092	0.090	0.097	0.087	0.092
3	Average Output Ship Berth day (in tonnes)	14732	24736	28682	29790	35515
4	Average non-working time at berth (Idle time in days)	0	0	0	0	0

Thus it could be seen that the performance of the PPP operator and the CB-1 Port berth during 2010-15 was almost at par in respect of APBD, ATRT and AOSBD, whereas the 'Non-working Time' at the berth was Nil in respect of the PPP operator. The performance of the CB-2 berth of port and the PPP operator was at par (2010-15) in respect of APBD and ATRT. However, in respect of AOSBD the performance of the PPP operator was better during the 2012-2015.

In the absence of similar berths, comparison could not be made in NMPT, CoPT, ChPT, KoPT and MPT. Further, as there were no completed PPP projects at MbPT, VOCPT and PPT, comparison was not possible.

Based on the above performance indicators audit could not conclude regarding significant improvement in the quality of service after introduction of PPP model.

Ministry stated (October 2015) that PPPs have brought in private investment, improved management culture and encouraged the port management to constantly strive for raising the quality of service and efficiency in port operated facilities so as to remain competitive. Ministry added that for the benchmarking of performance parameters of PPP projects against those in comparable ports, a consultancy firm has been entrusted to conduct a study and their report is expected by December 2015.

Recommendation 4: *MoS should standardize the process of selection and appointment of Independent Engineers.*

Recommendation 5: *MoS/Ports need to design a mechanism to ensure timely obtaining of environmental clearance for each project well before commencement of the tendering process.*