



**GOVERNMENT OF TAMIL NADU
HIGHWAYS AND MINOR PORTS DEPARTMENT**

DEMAND NO. 21

PERFORMANCE BUDGET

2017-2018

PERFORMANCE OF HIGHWAYS AND MINOR PORTS DEPARTMENT DURING 2017-2018

I.HIGHWAYS DEPARTMENT

1. INTRODUCTION

The development of road network is very essential for the socio-economic growth of a country. This helps in providing better connectivity efficient and safe journey. The increasing vehicular population and their traffic requirements decide the capacity of the road network. The road network thus formed, carries the economic benefits to all the parts, enabling the integrated development. The road infrastructure of the State aids in taking the trade and communication aspects to various parts

The above developments are better achieved by implementing works like widening / improvements of roads, construction of bridges, flyovers, Grade-separators and formation of bypasses etc.,. Hence, all these works are carried-out by the State Highways Department. Apart from the construction, maintenance of the infrastructures is very essential which is done by the Department.

The detailed physical and financial performance of the department during 2017 - 2018 is elaborated below:-

1.1 ASSETS MAINTAINED BY HIGHWAYS DEPARTMENT

The Highways Department maintains Government roads to a length of 63,650 Km. The classification of roads and their lengths and the type of existing bridges and their numbers are tabulated in **Table 1 and Table 2** respectively. The surface wise details and lane-wise details of the roads are tabulated in **Table 3 and Table 4** respectively.

TABLE 1: CLASSIFICATION OF ROADS

Classification of Road	Length (Km)
National Highways (NH)	
Maintained by NH wing	2039
Maintained by NHAI	3285
Sub-Total	5324
State Highways (SH)	11830
Major District Roads (MDR)	11638
Other District Roads (ODR)	34858
Total	63650

TABLE 2: TYPES OF BRIDGES AND THEIR NUMBERS

Types of Bridges	Nos.
Major Bridges and Minor Bridges*	8639
Culverts	115670
Road Over Bridges at Railway level crossing(ROB)	127
Road Under Bridges at Railway level crossing (RUB)	57
Pedestrian Sub Way	14
Total	124507

* includes bridges with Linear Waterway 6m-60 m and more than 60m

TABLE 3: SURFACE-WISE LENGTH

(length in Km)

S. No.	Category of Road	Cement Concrete (C.C)	Black Topped (B.T)	Metaled	Total
1	National Highways	2	5322	-	5324
2	State Highways	22	11808	-	11830
3	Major District Roads	32	11606	-	11638
4	Other District Roads	101	34756	1	34858
Total		157	63492	1	63650

TABLE 4: LANE-WISE DETAILS OF ROADS

(length in Km)

S. No	Category of Road	Single lane	Inter mediate lane	Double lane	Multi lane	Total
1	National Highways					
	a)National Highways wing	12	26	1879	122	2039
	b) National Highways Authority of India	-	-	1182	2103	3285
	Sub-Total	12	26	3061	2225	5324
	Lane wise percentage	0%	0%	58%	42%	
2	State Highways	39	291	9416	2084	11830
	Lane wise percentage	0.3%	2.5%	79.60%	17.60%	
3	Major District Roads	375	7496	3556	211	11638
	Lane wise percentage	3%	64%	31%	2%	
4	Other District Roads	29537	4256	994	71	34858
	Lane wise percentage	85%	12%	2.80%	0.20%	
	Total	29963	12069	17027	4591	63650
	Percentage of lane wise to total length of roads	47%	19%	27%	7%	

1.2 PERFORMANCE UNDER PLAN SCHEMES

1.2.1 FINANCIAL PERFORMANCE

The financial performance under the plan schemes for the year 2017-2018 and Budget Estimate for the year 2018-2019 are given in **Table 5**.

TABLE 5: FINANCIAL PERFORMANCE

(Rupees in Lakhs)

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
	Construction and Maintenance			
	State Highways			
1	Bridges (Part II Scheme)	0.07	0.00	1188.92
2	Roads (Part II Scheme)	0.05	473.15	0.05
	Sub-Total	0.12	473.15	1188.97
	Major District Roads			
3	Major District Roads (Part II Scheme)	0.00	0.00	0.00
	Sub-Total	0.00	0.00	0.00
	Other District Roads			
4	Other District Roads (Part II Scheme)	0.01	0.00	0.01
	Sub-Total	0.01	0.00	0.01
	Rehabilitation of Distressed Bridges			
5	Rehabilitation of Distressed Bridges (Part II Scheme)	0.00	0.00	0.00
	Sub-Total	0.00	0.00	0.00
6	Other Roads (Part II Scheme)	0.01	0.00	0.00
	Comprehensive Road Infrastructure Development Programme			
7	CRIDP – SH	124948.07	131596.91	124948.00
8	CRIDP - MDR	84734.22	60803.94	61787.00
9	CRIDP - ODR	79055.71	95706.24	99484.00
10	CRIDP - SCP	21262.00	21114.77	26196.00
	Sub-Total	310000.00	309221.86	312415.00

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
11	CRIDP – Improvement to Road Quality	-	-	40000.00
12	CRIDP – PBMC Vidudhunagar	-	-	27585.00
13	Improvement to Chennai Radial Roads	0.03	0.00	0.01
14	Acquisition of lands for bypasses-JK			
	(i) works	0.00	0.00	0.00
	(ii) lands	14645.87	7397.98	17571.08
	Acquisition of land Sub- total-JK	14645.87	7397.98	17571.08
15	Acquisition of lands for bypasses-KC			
	(i) works	10000.00	1914.53	14129.04
	(ii) lands	20000.00	212.00	19541.01
	Acquisition of land Sub- total-KC	30000.00	2126.53	33670.05
16	Improvement of vital roads in industrial areas through Tamil Nadu Road Infrastructure Development Corporation	10494.00	13488.00	16754.02
17	Widening to four lane of Madurai road through TNRIDC	0.00	1200.00	5000.00
18	Chennai Outer Ring Road (Phase-I)	16195.46	14721.49	15216.04
19	Chennai Outer Ring Road (Phase-II)	27799.80	15786.87	26818.24
20	Construction of Buildings	0.40	20.07	0.10
21	Upgradation of IT highway in Chennai	0.01	17045.00	0.01

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
22	Schemes implemented under State Infrastructure and Amenities fund- Controlled by CE(H) C&M	0.00	0.00	393.00
23	Special Project for attending to Road Safety - KO	13995.50	10286.67	10000.00
24	Palar bridge in ECR road - JE	0.01	0.00	0.01
25	Northern Port Access Road - KN	20000	10060.00	20060.00
26	Bypass to Kelambakkam Thiruporur in Rajiv Gandhi Salai with JICA assistance TNIPP Ph-2	5000.00	4000.00	10000.00
27	Construction of CE Quarters - KB	0.01	24.31	0.01
28	City Traffic Improvement works- JD	5086.03	2813.67	3872.83
29	High Density Corridor - JE	1000.00	999.90	4207.87
30	Construction of flyover at Salem junction-Yercaud Road - JF	20000.00	6105.02	21724.21
31	Widening from Intermediate Lane to Four Lane and Strengthening of Puduvoyal-Pulicat Road	-	0.00	2500.00
32	Programme for Plastic and litter free Highways	0.01	0.00	0.00
33	Asian Development Bank assistance Chennai - Kanyakumari Industrial Corridor project	-	0.00	12500.00
	Plan - Total	474217.27	415770.52	581476.46
34	Tsunami - Centrally assisted	0.01	153.43	0.01
	Plan Total	474217.28	415923.95	581476.47

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
Highways Research Station				
35	Institute of Highway Research and Management	0.01	0.00	0.00
36	Operation and Maintenance of Road Measurement and data acquisition system in respect of ODR and NH roads	5.40	5.38	5.40
37	Tamil Nadu Innovation Initiatives Fund (TANII) for 2016-17	7.01	0.00	11.00
38	Tamil Nadu Innovation Initiatives Fund (TANII) for 2017-18	255.00	29.82	235.00
39	Tamil Nadu Innovation Initiatives Fund (TANII) for 2018-19	0.00	0.00	4.00
40	Operation and Maintenance of Advanced Data Collection Equipment	0.00	0.27	24.87
	Total	267.42	35.47	280.27
NABARD and Rural Road Wing				
41	Improvements to Major District Roads/ Other District Roads under NABARD loan assistance	4227.01	2892.39	198.01
42	Construction / Reconstruction of Bridges in Government roads with loan assistance from NABARD	37.74	207.03	0.01
43	Construction of bridges in Government and rural roads	31000.00	16229.88	25000.01

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
44	Improvements to Rural Roads with NABARD loan assistance	117.31	0	27.31
45	Improvements to Bus Route with NABARD loan assistance	0.02	0	0.02
46	Improvements to Rural roads with loan assistance from NABARD under Special Component Plan	0.02	0	0.02
47	Construction of bridges under Tsunami Emergency Assistance Project with loan assistance from ADB	0.01	0	0.01
48	By-pass works (L.A.)	4177.93	37.04	3052.00
49	Upgradation of Panchayat Union Roads/ Panchayat Roads under State Fund	0.00	11426.09	67500.00
	Plan – Total	39560.04	30792.43	95777.39
	Project Wing			
50	Construction of over and under bridges in lieu of existing level crossings JJ	33625.40	19779.33	24142.78
51	Construction of ROB in Chennai Metro Area for Traffic Management JD	552.69	830.61	1028.00
52	Construction / Reconstruction of bridges JE	8904.88	5521.55	8356.82
53	Construction/ Reconstruction of bridges and improvement of roads with loan assistance from NABARD JQ	0.12	0.00	0.04
54	Provision for road works under TNUDP JN	0.03	1558.09	4381.04

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
55	Construction of Road Over Bridge/Road Under Bridge in lieu of level crossings JT	38003.48	18463.93	27223.86
56	Construction of Interchange at the junction of Pondy-Krishnagiri road under IS&EI (JA-Head)	0.00	2.67	0.00
57	Construction of over and under bridges in lieu of existing level crossings JG	2965.59	2790.58	5144.24
58	Construction of Bridges with loan assistance from HUDCO (Land acquisition payment)-JB	0.01	0.00	0.01
	Total	84052.20	48946.76	70276.79
	Metro Wing			
59	Chennai Metropolitan Development Plan	42673.99	26957.58	47218.01
	Total	42673.99	26957.58	47218.01
	National Highways			
60	Revamped Central Road Fund	50000.00	55081.00	80000.00
61	Inter State Connectivity	0.00	0.00	0.00
62	Economic Importance	0.00	0.10	0.00
63	Bharat Nirman Scheme (Maintenance borne by State Government)	503.52	252.00	744.09
64	State Plan – Miscellaneous Original Works	0.00	0.00	0.01
	Total	50503.52	55333.10	80744.10
	Tamil Nadu Road Sector Project			
65	TNRSP	150809.70	87865.70	50313.24
	Total	150809.70	87865.70	50313.24

Sl. No.	Name of Scheme	2017-2018		2018-2019 Budget Estimate
		Budget Estimate	Expenditure	
Director General (Highways)				
66	Operation and Maintenance of Advanced Data Collection Equipment (ADCEs) in respect of SH/MDR/NHAI roads	0.02	0.00	0.00
Total		0.02	0.00	0.00
Overall Total		842084.17	665854.99	926086.27

1.2.2 PHYSICAL PERFORMANCE

The physical achievements under the plan schemes for the year 2017-2018 and targets for the year 2018-19 are given in **Table 6.**

TABLE 6: PHYSICAL PERFORMANCE

S. No	Name of Scheme	Achievements 2017-2018		Targets 2018-2019	
		Bridges/ Culverts/ Structures in Nos.	Roads length in Km	Bridges/ Culverts/ Structures in Nos.	Roads length in Km.
Construction and Maintenance					
1	Comprehensive Road Infrastructure Development Programme				
	State Highways	62	1254	65	1200
	Major District Roads	53	837	50	800
	Other District Roads	56	2413	60	2200
	Other District Roads Special Component Plan (CRIDP)	6	590	7	600
Sub-Total		177	5094	182	4800

S. No	Name of Scheme	Achievements 2017-2018		Targets 2018-2019	
		Bridges/ Culverts/ Structures in Nos.	Roads length in Km	Bridges/ Culverts/ Structures in Nos.	Roads length in Km.
	Plan Total				
	Roads/ Bridges	177	5094	182	4800
	Buildings	1			
	Tsunami – Centrally assisted	2		1	
	NABARD and Rural Road Wing				
2	Improvements to Major District Roads/ Other District Roads under NABARD loan assistance	---	81	---	---
3	Construction / Reconstruction of Bridges in Government roads with loan assistance from NABARD	----	---	1	---
4	Construction of bridges in Government and rural roads	64	---	60	---
5	Improvements to Rural Roads with NABARD loan assistance	---	---	1	---
6	Upgradation of Panchayat Union Roads / Panchayat Roads under State Fund	----	---	----	1436
	TOTAL	64	81	62	1436
7	Tsunami Rehabilitation Programme	---	---	2	---

S. No	Name of Scheme	Achievements 2017-2018		Targets 2018-2019	
		Bridges/ Culverts/ Structures in Nos.	Roads length in Km	Bridges/ Culverts/ Structures in Nos.	Roads length in Km.
8	Railway Works Programme	3	---	5	---
	Total	67	81	69	1436
Projects					
9	Road over/ under bridges in lieu of existing Level Crossings -JJ	3	-	14	-
10	Construction of Over Bridges/ Under Bridges in lieu of level crossings -JT	1	-	11	-
11	Construction / Reconstruction of bridges JE	-	-	7	7.20
12	Construction of Road over Bridges in Chennai Metro Area for Traffic Management - JD	1	-	-	-
13	Construction of over and under bridges in lieu of existing level crossings - JG	-	-	4	-
14	8443 Civil Deposit	1	-	-	-
15	Comprehensive Road Infrastructure Development Programme (CRIDP)				
(15i)	State Highways (JI - CRIDP)	-	-	2	-

S. No	Name of Scheme	Achievements 2017-2018		Targets 2018-2019	
		Bridges/ Culverts/ Structures in Nos.	Roads length in Km	Bridges/ Culverts/ Structures in Nos.	Roads length in Km.
(15ii)	Other District Roads (JU - CRIDP)	-	-	6	1.40
	Total	6	-	44	8.60
16	Chennai Metropolitan Development Plan				
	a) ROB/RUB	1	-	1	-
	b) Grade Separator	1	-	6	-
	c) River Bridge	1	-	2	-
	d) Roads / Bridges (km)	-	0.18	1	-
	Total	3	0.18	10	-
	National Highways				
17	Revamped Central Road Fund Scheme	2	733	1	800
18	Inter State Connectivity scheme		72		110
19	Economic Importance Scheme				
	Total	2	805	1	910

1.3 PERFORMANCE UNDER NON-PLAN SCHEMES

An allocation of Rs. 1197.23 crore has been made for maintenance of roads and bridges and renewal of 4340 Km length of roads has been completed at an expenditure of 1215.36 crore.

1.3.1 FINANCIAL PERFORMANCE

The financial performance indicating the details of expenditure incurred during 2017-2018 under various heads of Non Plan Schemes and the allocation for 2018-19 is given in **Table 7**.

TABLE 7: FINANCIAL ALLOCATION AND EXPENDITURE OF NON PLAN SCHEMES

(Rs.in lakh)

S. No.	Name of Scheme	2017-2018		2018-2019
		Budget Estimate	Expenditure	Budget Estimate
1	National Highways Urban	234.52	234.52	234.52
2	Maintenance of Certain important Roads in the City of Chennai	2110.64	2110.64	2110.64
3	State Highways	31667.10	32115.02	17724.77
4	Major District Roads	25197.74	25496.69	16362.09
5	Other District Roads	58571.73	59665.98	57153.28
6	Sugarcane Roads	1849.79	1825.29	1849.79
7	Improvements to Nilgiris Ghat Roads	92.35	88.63	92.50
	Total	119723.87	121536.77	95527.59

1.3.2 PHYSICAL PERFORMANCE

The length of roads renewed under Non plan maintenance during 2017-2018 and the target for 2018-19 is given in **Table-8**.

TABLE 8: PHYSICAL PERFORMANCE OF NON PLAN SCHEMES

(Length in Km)

Sl. No	Name of wing	Achievement 2017-2018	Target 2018-2019
1.	Construction and Maintenance	4340 Km	2800 Km

2. PERFORMANCE UNDER MAJOR SCHEMES AND KEY PROJECTS

During the year 2017-2018, an amount of Rs.5582.69 crore was provided in the Budget Estimate for Highways Department and the expenditure incurred under Plan Schemes is Rs.4647.52 crore.

2.1 COMPREHENSIVE ROAD INFRASTRUCTURE DEVELOPMENT PROGRAMME (CRIDP)

In view of the need to augment the capacity of the roads, widening of all State Highways to Double Lane and widening of Major District Roads to Intermediate Lane has been given importance. During 2017-18 widening and improvements of **5060.85 Km** roads, construction of 737 culverts/ bridges/ protective works were taken up under this scheme for which **Rs.3000 crore** was sanctioned.

During 2017-18, Road works to a length of **5094 Km** and **177 Bridges / Culverts / Protective works** have been completed incurring an expenditure of **Rs.3092.22 crore**.

2.1.1 CRIDP – STATE HIGHWAYS

During 2017-18, widening/ improvements to 1098.78 Km length of roads and construction of 199 bridges/culverts/ protective works were taken up as spillover works at a cost of Rs.1721.09 crore.

New works of widening/improvements to 883.21 Km length of roads, construction of 20 bridges/ culverts and 187 protective works were also sanctioned at a cost of Rs.821.84 crore and are under progress.

During 2017-18, widening/ improvements in 1254.47 Km length of roads and 62 bridges/ culverts/ protective works have been completed at a cost of Rs.1315.97Crore.

2.1.1.1 Construction Of Grade Separator Near Erode Government Hospital Junction

In 2013-14, Government has accorded Administrative Sanction for Rs.22.93 crore to carry out preliminary works for construction of Grade Separator at Km 1/8 of Erode – Perundurai – Kangeyam Road near Government hospital Junction. The preliminary works were completed. Also the Administrative Sanction for the work has been accorded to a tune of Rs. 58.54 crore under CRIDP 2016-17 and currently, 40% of work was completed and further work is in progress.

2.1.1.2 Construction Of High Level River Bridge Across River Thamirabarani at Tirunelveli

In 2017-18, Government has accorded Administrative Sanction for Rs.16.50 crore for the work of construction of a High Level Bridge across River Thamirabarani Parallel to old Bridge Near Tirunelveli Junction at Km 150/2 of Madurai-Kanniyakumari Road and the work is in progress.

2.1.2 CRIDP –MAJOR DISTRICT ROADS

Spillover works of widening/ improvements to 742.65 Km length of roads and construction of 170 bridges/ culverts/ protective works were taken up at a cost of Rs. 525.03 crore.

During 2017-18, widening/ improvements to 873.57 km length of roads, construction of 17 bridges/ culverts and 168 protective works were sanctioned at a cost of Rs.563.85 crore and are being implemented.

Widening/ improvements in 836.91 Km length of roads and 53 bridges/culverts/ protective works have been completed at a cost of Rs. 608.04 crore in the year 2017-18.

2.1.2.1 Construction Of High Level River Bridge Across Surplus Canal Of Wellington Reservoir In Cuddalore District

In 2017-18, Government has accorded Administrative Sanction for Rs.11.85 crore for work of Construction of High Level Bridge across

surplus canal of Wellington reservoir at km 3/8 of Thittakudi – Sirupakkam road. in Cuddalore District. Tenders will be floated soon.

2.1.3 CRIDP –OTHER DISTRICT ROADS

During 2017-18, works costing to a tune of Rs.1471.08 crore comprising of widening/ improvements to 2384.78 Km length of roads and construction of 226 bridges/culverts/protective works were spilled over.

New works of widening/improvements to 2707.57 km length of roads, construction of 59 bridges/culverts and 273 protective works have been sanctioned at a cost of Rs.1154.95 crore in the year 2017-18 and are under progress.

Widening/improvements in 2413.02 Km length of roads and 56 bridges/ culverts/ protective works have been completed in the financial year 2017-18 at a cost of Rs. 957.06 crore

2.1.3.1 High Level Bridge Across Noyyal River Near Chikkana College

The High level bridge sanctioned for Rs.3.85 crore under CRIDP scheme during 2006-07. Bridge work is completed. This work is a combined project with ROB near Chikkanna College, Tiruppur. One side approach work is taken up under CRIDP scheme and the other side approach will be taken with the ROB work.

2.1.3.2 Construction Of High Level River Bridge Across River Virusuli At Sivagangai

In 2017-18, Government has accorded Administrative Sanction for Rs.9 crore for work of construction of High level bridge across the river Virusuli at km 2/8 of Kannankudi – Kookudi road. Work would be commenced shortly.

2.1.3.3 Construction Of High Level River Bridge Across River Cheyyar At Thiruvannamalai

In 2017-18, Government has accorded Administrative Sanction for Rs.17.04 crore for work of construction of High level bridge across the

river Cheyyar at Km 0/8 of Thandarai – Eraiyur road. The work is in tender stage.

2.1.3.4 Construction Of High Level River Bridge Across River Thenpennai At Krishnagiri

In 2017-18, Government has accorded Administrative Sanction for Rs.2.85 crore for work of reconstruction of High Level Bridge across the river Thenpennai at Km 2/6 of VCC road to Pathakotta road in Krishnagiri District. Work is in progress.

2.1.3.5 Construction Of High Level River Bridge Across River Sankaraparani In Villupuram District

In 2017-18, Government has accorded Administrative Sanction for Rs.8.61 crore for work of construction of High Level Bridge across the river Sankaraparani at Km 1/8 of Rettanai – Marur road. Work is in tender stage.

2.1.3.6 Construction Of High Level River Bridge Across River Thondiyar In Villupuram District

In 2017-18, Government has accorded Administrative Sanction for Rs.8.65 crore for work of construction of High Level Bridge across the river Thondiyar at Km 5/4 of Alagramam Thenputhur road branching at Km 21/0 of Vellimedupettai - Mailam Road. The work is in tender stage.

2.1.3.7 Construction Of High Level River Bridge Across River Gedilam In Villupuram District

In 2017-18, Government has accorded Administrative Sanction for Rs.10.05 crore for work of construction of High Level Bridge across the river Gedilam at Km 5/0 of Arunkurukkai Road branching at Km 59/10 of Cuddalore - Chittoor road. Tenders will be floated soon.

2.1.3.8 Construction Of High Level River Bridge Across River Vaigai

In 2017-18, Government has accorded Administrative Sanction for Rs.16.13 crore for work of construction of High Level Bridge across the river Vaigai connecting Paravai in SHU 100 and Thuvariman in Madurai-Melakkal road. The tender is under scrutiny.

2.1.3.9 Forming And Improving Road On The Left Bank Of Vaigai River From Kuruvikaran Salai Bridge To PTR Bridge

In 2017-18, Government has accorded Administrative Sanction for Rs.14.85 crore for work of forming and improving road on the left bank of Vaigai river from Kuruvikaran Salai Bridge to PTR Bridge in Madurai Km. 0/0 - 1/4. Tender will be floated soon

2.1.4 CRIDP - OTHER DISTRICT ROADS - SPECIAL COMPONENT PLAN

Spillover works of widening/ improvements to 604.11 Km length of roads and construction of 4 bridges/culverts were taken up in the year 2017-18 at a cost of Rs.202.80 crore.

New works of widening/improvements to 596.50 Km length of roads, construction of 3 bridges/culverts and 10 protective works were sanctioned at a cost of Rs.231.86 crore and are being implemented.

During 2017-18, road works to a length of 590.42 Km were completed at a cost of Rs.211.14 crore.

2.1.5 ERODE OUTER RING ROAD

The Government have sanctioned Erode Outer Ring Road from Kokkarayanpettai to Thindal for a total length 14.80 Km , which involves Phase I, II & III. From Km 0/0 to 2/2 with construction of a high level bridge across Cauvery River as Phase I and formation of road from Km 2/2 to 7/6 as Phase II were completed under this scheme. For Phase III from Km 7/6 to 14/8, at present an ROB & Road work have been completed except at stretches Km7/560-7/640, Km7/880-7/990, Km10/6 and Km14/180-14/615 where the work is held up due to court cases.

2.2 CHENNAI METROPOLITAN DEVELOPMENT PLAN (CMDP)

The Chennai Metropolitan Development Plan is being implemented since 2003-04 utilizing State budgetary allocation to build infrastructure in the Chennai Metropolitan Area as per the Second Master Plan of the

Chennai Metropolitan Development Authority (CMDA). The projects are prioritized based on the recommendations of the Comprehensive Traffic and Transportation Study.

During 2017-18, an amount of Rs. 269.58 crore has been spent for these works under CMDP Plan. Further an expenditure of Rs. 30.16 crore has been incurred for ROB/RUBs under Project wing's head. The details of expenditure made under various head of accounts based on allocation of funds is shown in **Table 9**.

TABLE 9: EXPENDITURE DETAILS

(Rs. in lakh)

Sl. No	Head of Account	BE for 2017-18	RE for 2017-18	Expenditure for 2017-18
1	JW 1608 (works) & 6407(lands)	33886.40	31117.19	24458.79
2	KJ 1603	5787.59	3965.04	1793.04
3	JH 1602 (works) & 6401(lands)	3000.00	1883.43	705.75
	Sub Total	42673.99	36965.66	26957.58
4	JD 1601 Bridges	186.68	2694.62	1201.61
5	JT 1604	10407.62	3855.60	1801.79
6	JJ 1601	2809.03	12.00	12.42
	Sub Total	13403.33	6562.22	3015.82
	Total	56077.32	43527.88	29973.40

During 2017-18, 13 Grade Separators, 11 Railway Over Bridge/ Railway Under Bridges, six River Bridges, six Road Works, five Pedestrian Subways and a FOB with Skywalk were taken up as spill- over works.

2.2.1 GRADE SEPARATORS

Out of 13 Grade separators, one Grade Separator at Porur at a cost of Rs.58.05 crore has been completed and opened to traffic. Remaining 12 works are in various stages. The details are as follows.

2.2.1.1 Works in progress:

1. Pallavaram at a cost of Rs. 82.66 crore.
2. Velachery Vijayanagaram junction at a cost of Rs.108 crore.
3. KaliammanKoil road junction at a cost of Rs. 93.50 crore.
4. Medavakkam at a cost of Rs.146.41 crore.
5. Kilkattalai at a cost of Rs.64 crore.
6. Kolathur Rettai Eri (RHS) at a cost of Rs. 32.03 crore.

2.2.1.2 LA in progress:

7. Thiruvanmiyur Junction - Rs. 58 crore.

2.2.1.3 DPR work in Progress:

8. Thiruvanmiyur junction
9. Madipakkam.
10. Nelson Manickam road (Section –IV) second level.
11. Kattupakkam
12. Pulla Avenue.

Further during 2017-18, Government has accorded Administrative Sanction for seven works amounting to Rs.10 crore towards preparation of Detailed Project Report. Presently the DPR work is in progress for the following five works:

1. Forming six lane of ECR from Km: 11/8-23/2. Thiruvanmiyur to Akkarai including Grade Separator.
2. Providing Skywalk, Escalator and other accessories connecting East Tambaram to West Tambaram with Multi Model Integration connectivity to existing Bus stand, Tambaram Railway station including improvements to existing Bus stand.

3. Four lane Grade Separator at Km 76/8 of Chennai Thiruthani Renigunda Road-NH-205 & junction of KM 6/4 of Vanagaram- Ambattur Road.
4. Grade Separator at Km 68/4 of NH-205 and Mount-Poonamalle Avadi Road-SH-55 at KM 20/8
5. Grade Separator at the Junction of Km 4/2 of Madhavaram Redhills road and KM 19/100 of Inner Ring Road.

Moreover, Government has sanctioned Rs.3.48 crore towards DPR preparation for the following six Grade Separators:

1. Mount – Poonamallee – Avadi road from MIOT Hospital to Mugalivakkam via Ramapuram, L&T and DLF.
2. Marmalong Bridge – Irumbuliyur Road at the intersection of MBI Road and Madambakkam road.
3. Chennai -Thirutani-Renigunda Road NH 205 at Korattur
4. At the intersection of Pallavaram - Kundrathur Road and CKS Road at Kundrathur.
5. Extension of Vadapalani Grade Separator upto Ashok Pillar Junction.
6. Marmalong Bridge - Irumbuliyur road near Kaiveli, Madipakkam.

The DPR preparation work is in progress.

2.2.2 RAILWAY OVER BRIDGES/ UNDER BRIDGES (ROBS/ RUBS):

Out of 11 Railway Over Bridge/ Railway Under Bridges, one Railway Over Bridge in lieu of L.C.3 at Mattumandhai was completed at a cost of Rs. 58.05 crore and opened to traffic. The remaining works are in various stages. The details are as follows.

2.2.2.1 Work in progress:

1. RUB in lieu LC No.4 near Korattur at a cost of Rs.19.97 crore.

2.2.2.2 Works in various stages of Implementation :

2. ROB in lieu LC No.14 near Veppampattu at a cost of Rs.29.50 crore – LA stage.
3. RUB in LC No.6 near Thiruvotriyur- Wimco Nagar Railway stations at a cost of Rs.25.50 crore- DPR Stage
4. RUB in LC No.4 near Thiruvotriyur-Ennore Railway stations at a cost of Rs.28.00 crore – DPR and LA Stage.
5. ROB in lieu LC No.16 in near Nanthiyambakkam Minjur Railway Station at a cost of Rs.28.32 crore – DPR and LA Stage.
6. ROB in LC No.32 & 33 near Perungulathur Railway station at a cost of Rs.76 crore – DPR Stage
7. RUB in lieu of LC No.22 near Thirusulam Railway station at a cost of Rs.14 crore - DPR Stage.
8. LUS in lieu of LC No.27 near Chrompet Railway station at Radha Nagar at a cost of Rs.14.75 crore - LA Stage.
9. Widening of ROB to dual four lane at Km 12/2-13/2 of Inner Ring Road and the entire work will taken up by the Highways Department– DPR Stage
10. Widening of ROB at Km 20/8 of Mount – Poonamallee – Avadi road for an amount of Rs.11.05 crore is under consideration for approval.

2.2.3 RIVER BRIDGE

Out of six River Bridges, one bridge at Km 6/6 across Coovum river near Aminjikai was completed at a cost of Rs. 11.10 crore and opened to traffic. The remaining works are in various stages. The details are as follows.

2.2.3.1 Works in progress:

1. Widening of the bridge at km 2/6 of Mount –Poonamallee – Avadi road at a cost of Rs.17 crore.
2. Construction of high level bridge across “B” Canal at Km 0/6 of Thiruvottriyur –Ponneri –Panchetty Road at a cost of Rs.58.64 crore.

2.2.3.2 LA in progress:

3. Construction of High level bridge across Coovam river at Nolambur road at a cost of Rs.36 crore.
4. Construction of high level bridge across Coovam river at km 14/4 of M.P.A road at Paruthipattu at a cost of Rs.3.10 crore.

2.2.3.3 DPR work in progress:

5. Construction of High level Bridge across Coovam River at **Padikuppam.**

2.2.4 ROAD WORKS

Out of six Road Works, one work of Widening and strengthening Taramani Link road at Km 0/0-3/650 was completed at a cost of Rs. 33.12 crore. LA is in progress for the following three works. The details are as follows.

2.2.4.1 LA in progress:

1. Formation of link road and construction of bridge across Buckingham canal connecting Rajiv Gandhi and ECR at Neelankarai- Rs. 204.20 crore.
2. Formation of Tambaram Eastern By-pass road at km 0/0-8/4- Rs. 75.50 crore.
3. Forming six lane of ECR from km 11/8-23/2 Thiruvanmiyur to Akkarai - Rs. 354.66 crore.

2.2.4.2 New Works

The work of formation of Tambaram Eastern bypass Km 5/450 – 8/080 will be taken up during 2018-19 at a cost of Rs.33.35 crore.

2.2.5 PEDESTRIAN SUBWAYS

Construction of Pedestrian subway at the following five locations at a cost of Rs. 19 crore were taken up.

- i. GST road near little Mount AG Church.
- ii. Guindy MKN road.
- iii. at km 1/6 of IRR near Ekkattuthangal
- iv. at km 2/7 of IRR near Kasi Theatre
- v. at km 7/7 of IRR near Koyambedu bus terminus .

However there is no feasibility of taking up the above works due to difficulties in shifting of pipelines and fouling of alignment of the said works along the Metro Rail alignment. So alternate proposals have been studied and it has been decided to provide foot over bridge with escalator at the following two locations:

1. Near A.G Church in Anna Salai
2. Near M.K.N road junction at Guindy in GST road.

The proposals for the remaining works are under study.

2.2.6 FOB WITH SKYWALK :

The Government has sanctioned the work of Construction of FOB and Skywalk with escalator at KM 26/8 of GST road connecting Tambaram railway station and Bus Stand for Rs.19.75 crore and the same is in progress.

2.3 CONSTRUCTION OF ROAD OVER / UNDER BRIDGES AT RAILWAY LEVEL CROSSINGS UNDER RAILWAY WORKS PROGRAMME

The construction of Road Over Bridges (ROBs) / Road under Bridges (RUBs) in lieu of Level crossings having more than one lakh TVU are undertaken under Railway Works Programme on 50:50 cost-sharing basis with Railways. These are provided at the locations of road-rail

level crossings where the passage of road vehicles is hampered due to increased frequency of train movements.

Till 2017-18, 103 ROB/ RUB works are included under the Railway Works Programme by Projects wing. Out of which 55 works are sanctioned to carry out the works and the remaining 48 works were sanctioned to carry out the Detailed Project Report (DPR)/ Preliminary works.

47 spillover works are being implemented and eight new works were taken up by Projects wing during 2017-18 at a total cost of Rs.1624.28 crore for the construction. Out of the 55 works, seven ROB been completed at a cost of Rs.220.94 crore and 23 works are in progress for a value of Rs.702.94 crore. The remaining 25 works are in various stages of pre-construction at a cost of Rs.700.40 crore and in which it is proposed to complete 25 ROB/ RUB works before March 2019.

48 ROB/ RUB works are taken up for preliminary/ DPR preparation for the cost of Rs.213.47 crore. For eight works the DPR/ Preliminary work are prepared, at a cost of Rs.248.44 crore. 11 preliminary works and 29 DPR works are in process at a cost of Rs.190.80 crore.

A sum of Rs.410.34 crore has been spent for this scheme in 2017-18.

2.4 NABARD LOAN ASSISTANCE SCHEMES

2.4.1 IMPROVEMENTS TO MAJOR DISTRICT ROADS/OTHER DISTRICT ROADS UNDER NABARD LOAN ASSISTANCE

During 2017-18, under this scheme spill over works of 32 roads to a length of 87.19 Km at a cost of Rs 33.05 crore have been taken up for execution. 30 roads to a length of 81.39 km were completed. An expenditure of Rs.28.92 crore has been incurred.

2.4.2 CONSTRUCTION OF BRIDGES IN GOVERNMENT ROADS

Under this scheme, spill over of one bridge at a cost of Rs.3 crore was taken up for execution during 2017-18. An expenditure of Rs.2.07 crore has been incurred.

2.4.3 CONSTRUCTION OF BRIDGES IN GOVERNMENT AND RURAL ROADS

Under this scheme, spillover of 106 bridges at a cost of Rs.272.50 crore and 24 bridges at a cost of Rs 56.76 crore, 56 bridges at a cost of Rs. 115.31 crore and 70 Bridges at a cost of Rs.200.15 crore currently sanctioned during 2017-18, totaling to 256 Bridges at a cost of Rs.644.72 crore have been taken up for execution.

In the Financial year 2017-18, out of 256 Bridge works, 64 Bridges were completed with an expenditure of Rs. 162.30 crore, 58 Bridges are in Progress and the balance works are in various stages (i.e) tender stage, Estimate stage etc in which Tender stage – 55 works, Estimate stage – 77 works.

2.4.4 RURAL ROADS SCHEME

Under this scheme, spill over work of one bridge at a cost of Rs.1.17 crore in Panchayat Union Road has been taken up for execution. The approval of alienation of Indian Air Force (IAF) lands to Highways Department awaited from Ministry of Defence. Once all formalities are completed by GOI, the required extent of land would be handed over to Highways Department. After that balance work will be resumed and completed.

2.5 STATE GOVT FUNDED SCHEME :

2.5.1 UPGRADATION OF PANCHAYAT UNION ROADS / PANCHAYAT ROADS TO ODR STANDARDS BY STATE FUND

The State Planning Commission recommended the important Bus plying local body roads to be upgraded and reclassified as Other District Roads (ODR) since, due to heavy vehicular traffic, rapid development of interior parts of villages and more deteriorated condition of the existing Panchayat Union Roads / Panchayat roads. Considering the recommendation of State Planning Commission, the Hon'ble Minister for Finance and Public Works Department announced that "Important bus plying local body roads will be upgraded and reclassified as Other District

Roads (ODR) and handed over to the Highways Department for maintenance” during the Budget speech 2014-15.

Based on the above parameter, the Principal Secretary / Commissioner of Rural Development and Panchayat Raj Department identified 2596 Panchayat Union roads to a length of 7964 km and permitted to hand over to Highways Department for up gradation.

In continuation to the above, the proposal for upgrading 460 nos. of important Panchayat Union roads / Panchayat Roads for Rs.608 crore to a total length of 1435.96 km for the year 2017-18 has been sent to Government for Administrative Sanction under State Fund and the administrative sanction have been accorded by Government vide G.O. Ms. No. 88 / Highways and Minor Ports (HF1) Department, dated 27.10.2017. Now the tenders are finalized and work in progress.

2.6 BYPASSES FOR MAJOR TOWNS

To improve the road safety and to ensure hassle free through traffic bypasses are being formed to major towns. It reduces the traffic congestion in the built up areas and also reduces the vehicle operating cost and time.

So far, 15 bypasses have been completed by construction and Maintenance wing. Six bypasses namely Pattukottai Phase II, Edapady, Pollachi Eastern Bypass, Thiruthani, Tharamangalam and Rasipuram Phase I, Part-II are in progress.

In Projects wing, so far two bypasses have been completed. One bypass namely Erode Outer Ring Work phase III is in progress. Land acquisition process for bypasses to Western Tirunelveli, Western Aruppukottai, Road connecting Sukkaliyur (NH-7) and Thaneerpandal (NH-67) in Karur, alternate route from Pollachi to Coimbatore via Chettipalayam and Thuraiyur phase- II are in progress. Preparation of Detailed Project Report for bypasses to Eastern Karamadai, Annur town, Gobichettipalayam, Madurai Link road connecting NH-45B at Arambanur and NH-7 at Nagari, Erode Link road from Thindal junction to Kaniravutharkulam (via) Villarasampatty and Western Pollachi bypass are

in progress. Further, the proposal for land acquisition for bypasses to Tiruvallur and Shoolagiri town are in perusal.

The status of bypass works **being carried out is as follows:**

Table 10. Status of Bypasses (Projects)

DESCRIPTION	Nos.
Completed	2
In progress	1
LA work in progress	5*
DPR work in progress	6*
Works in consideration	2
Total	16

* The progress in LA and DPR works are approved in the year 2017-18.

2.7 TSUNAMI REHABILITATION PROGRAMME

During 2017-18, spill over works of six bridges to a value of Rs.39.40 crore were taken up and two bridge works has been completed at a cost of Rs.18.52 crore.

2.8 WORKS IN CHENNAI EXTENDED CORPORATION AREA

In the Extended Corporation area of Chennai, Thiruvallur and Kanchipuram districts, 251 Km length of roads are maintained by the Highways Department.

As per the announcement made by the Hon'ble Chief Minister during the year 2014-15, developmental works at a cost of Rs.1033 crore are being implemented in a phased manner in these roads.

36 works to a tune of Rs.400 crore have been sanctioned during 2014-16 in two phases.

During 2017-18, 24 spill over works to a length of 91.26 km were taken up at a cost of Rs.141.59 crore and 13 works at a cost of Rs. 38.14 crore have been completed.

2.9 PERFORMANCE BASED MAINTENANCE CONTRACT (PBMC)

Performance Based Maintenance Contract (PBMC) is a new concept designed to resolve the problems related to traditional methods of contracting and has significant potential to improve the maintenance and management of road infrastructure. Contracting out road maintenance to the private sector based on performance measures is an alternative solution to maintain road infrastructure in a cost-effective way. Many countries have succeeded in minimizing road infrastructure maintenance costs using performance-based maintenance contracts over the last two decades.

This scheme includes Initial Rectification, Periodical Renewal, Minor Improvements, Ordinary Maintenance and Emergency works.

This scheme has been introduced in this State in Pollachi division. Performance Based Maintenance Contract (PBMC) has been taken up in 377.38 Km length of roads comprising 191.40 Km of State Highways (SH) roads and 185.98 Km of Major District Roads for a period of five years at a cost of Rs. 233.93 crore. Now, the 5th year maintenance works are in progress.

Later, this scheme has been extended to the State Highways and the Major District Roads of Krishnagiri, Ramanathapuram and Thiruvallur Divisions during the year 2015-16. In Krishnagiri division, maintenance of 307 km length of State Highways and 274 km length of Major District Roads are also taken under Performance Based Maintenance Contract at a cost of Rs. 450 crore works are under progress

In Ramanathapuram Division sanction was accorded for Rs. 460 crore for maintenance of 229 km length of State Highways and 340 km length of Major District Roads under Performance Based Maintenance Contract (PBMC).

In Thiruvallur Division a length of 498km of State Highways and 278 km length of Major District Roads were taken up to a cost of Rs.630 crore.

During 2017-18, the maintenance of 642.5 Km, of State Highways and the Major District Roads of Virudhunagar division also has been sanctioned to a cost of Rs.611.98 crore under this scheme.

2.10 ROAD SAFETY MEASURES

The identification, analysis and treatment of road accident black spots are widely regarded as one of the most effective approaches to mitigate road accidents. It is well established that considerable safety benefits may accrue from the application of appropriate road engineering or traffic management measures at hazardous road locations. Results from such applications at "black spots" demonstrate high returns from relatively low cost measures.

A comprehensive proposal to improve the black spots in the Government roads has been prepared at an estimated cost of Rs.1130 crore.

Considering the above shelf of projects, the Government have sanctioned Rs.500 crore for road safety works under road safety fund. From 2014-15 onwards road safety works have been taken up under Comprehensive road Infrastructure Development Programme. Thus, road safety works to a tune of Rs.1360.09 crore were taken up under road safety funds and CRIDP so far as detailed below.

Table.11 Road Safety Works.

SI No	Year	Details of Fund allocation (Rs in crore)		
		CRIDP	Road Safety Fund under Highways Head	Total
1	2014-15	250.00	200.00	450.00
2	2015-16	206.87	100.00	306.87
3	2016-17	203.07	100.00	303.07
4	2017-18	200.15	100.00	300.15
		Total		1360.09

During the year 2017-18, 270 No. of works have been completed at an expenditure of Rs. 102.87 crore.

2.11 NATIONAL HIGHWAYS WORKS

Tamil Nadu has 5324 Km length of National Highways. Out of this 2039 km length of roads are improved/ maintained by National Highways wing of the State Government utilizing the funds provided by Government of India. The balance 3285 Km length of roads are being maintained by National Highway Authority of India (NHAI).

2.11.1 NATIONAL HIGHWAYS ORIGINAL WORKS

Under Annual Plan 2017-18, MoRT&H has accorded sanction for 64 works for a total length of 510.07 km at a cost of Rs.1060 crore. In addition to this, spill-over works of 36 road works for a length of 322.30 km and 13 bridge works, at a total cost of Rs.1418.66 crore, have also been taken up for execution. Of which, 19 road works (250.83 km) and six bridge works have been completed during 2017-18 at the cost of Rs.664.48 crore.

2.11.2 PERIODICAL RENEWAL (PR) / IMPROVEMENT OF RIDING QUALITY PROGRAMME (IRQP)

Under this scheme, 13 road works for a length of 109.84 km, amounting to Rs.70.20 crore have been taken up for implementation and completed during 2017-18 (spill over works).

2.11.3 SCHEMES SPONSORED BY GOVERNMENT OF INDIA

2.11.3.1 REVAMPED CENTRAL ROAD FUND SCHEME

During 2017-18, 47 road works to a length of 372.97 km and three bridge works, at a total cost of Rs.355.92 crore have been taken up for execution under this scheme. The works are in progress.

In addition to above, one bypass work (Sucheendram in Kanyakumari District), three high level bridge works and 147 road works for a total length of 762.67 km, at a value of 652.71 crore have been taken up as spill over works.

Out of above, 124 works for a length of 733.22 km have been completed, at an expenditure of Rs.550.81 crore and the balance works are in progress.

Further, 102 road works to a length of 748.84 km at a estimated cost of Rs.750 crore has been sanctioned in March, 2018 by MoRT&H as additional sanction during 2017-18, which will be taken up for implementation during 2018-19.

A budget provision of Rs.800 crore has been made for the financial year 2018-19 by the State Government under this scheme.

2.11.3.2 INTER STATE CONNECTIVITY SCHEME

MoRT&H has accorded sanction for the work of "widening the existing single lane to double lane of Chellampalayam - Burgur – Kollegal Road from Km 10/0 - 51/2" at a cost of Rs.72.91 crore, during 2017-18 under ISC Scheme.

In addition to this, 6 road works for a length of 133.55 km were taken up as spill-over works at a value of Rs.170.20 crore. Out of this, one work for length of 71.55 Km has been completed at an expenditure of Rs.63.97 crore and the remaining works are in active progress.

2.11.3.3 Pradhan Mantri Gram Sadak Yojana Phase II (2017-18)

In continuation to PMGSY-I (Phase-X), the Central Government has sanctioned 40 Other District Road (ODR) works to a length of 142.39 km, amounting to Rs.58.93 crore during 2017-18 under PMGSY-II and the works are under progress.

2.12 OTHER SPECIAL PROJECTS

2.12.1 ROAD OVER BRIDGE AT PALLIPALAYAM

During 2013-14, Government has accorded Administrative Sanction for Construction of Road Over Bridge at Km 90/2 of SH79 in Namakkal district for Rs.40.16 crore under state funds. The bridge has been completed, inaugurated by the Hon'ble Chief Minister on 26.03.2018 and opened for traffic.

2.12.2 RIVER BRIDGE WORKS

2.12.2.1 HIGH LEVEL BRIDGE AT KALLANAI ACROSS COLEROON RIVER

During 2015-16, the Government has accorded Administrative Sanction for Construction of High Level Bridge Across the River Coleroon at Kallanai connecting Thiruvanaikoil Road and Grant Anaicut Road in Thanjavur District For Rs.61.024 crore and work is in progress.

2.12.2.2 Construction Of High Level River Bridge At Chidambaram Across Uppanar River

During 2015-16, Government has accorded Administrative Sanction for Rs.10.06 crore for the construction of High Level Bridge across the river Uppanar in Cuddalore district connecting km 6/8 of Chidambaram-T.S.Pettai and km 161/8 of Coleroon river PWD left bund road. At present, river bridge work is completed in all aspects.

2.12.2.3 Reconstruction Of High Level River Bridge Near Bhuvanagiri Across Vellar River

During 2015-16, Government has accorded Administrative Sanction for Rs.22.57 crore for the reconstruction of High Level Bridge across the Vellar river at km 104/2 of abandoned Villupuram-Pondy-Nagapattinam road (NH-45A) near Bhuvanagiri in Cuddalore district. Bridge work is completed and approach road work is in progress.

2.12.2.4 Construction Of High Level River Bridge Across River Vaniyar Near Pappireddipatti

During 2015-16, Government has accorded Administrative Sanction for Rs. 7.25 crore for the construction of High Level Bridge at km 4/8 of Pappireddipatti – Mallapuram Road (M328) across Vaniyar river in Dharmapuri district. Bridge work is completed and approach road work is in progress.

2.12.2.5 Construction Of High Level River Bridge Across River Pambar Near Chithirambur

During 2015-16, Government has accorded Administrative Sanction for Rs. 18.817 crore for the construction of High Level Bridge across the

river Pambar with approaches near Chithirambur in Pudukottai district. Presently, 60% of work is completed and further work is in progress.

2.12.3 ROAD OVER BRIDGE AT AMBUR

During 2013-14, Government has accorded Administrative Sanction for preliminary works for Rs.6.97 crore for construction of Railway Over Bridge at Bethlegam area in Ambur Town to construct ROB in between Ambur and Vaniyambadi Railway Stations in Vellore district. Now the preliminary works are in progress.

2.12.4 ROAD OVER BRIDGE FOR ELCOT AT MADURAI (DEPOSIT WORK)

During 2015-16, Government accorded permission for the construction of Road Over Bridge at Vadapazhanji in Madurai District for ELCOT in SEZ, between Madurai and Usilampatty Railway Stations as a Deposit Work on behalf of M/s ELCOT, Chennai. The work was completed and opened to traffic.

2.12.5 CONSTRUCTION OF THREE FOOT OVER BRIDGES WITH ESCALATOR

In the year 2015 - 2016, the Government have accorded Administrative Sanction for Rs.30.18 crore, for the construction of three Foot Over Bridges with Escalators. For the FOB work near Railway Station at Coimbatore City, tender will be floated soon. For FOB work near Nanjundapuram junction at Coimbatore, feasibility study is under process. Feasibility study for the construction of a Grade Separator instead of FOB near Karur bus stand was studied. Government have accorded Administrative Sanction for DPR preparation at a cost of Rs.30 Lakh for Grade Separator.

2.12.6 DETAILED PROJECT REPORT PREPARATION IN THE YEAR 2016-17

During 2016-17, Government has accorded sanction for Rs.8.73 crore for the preparation of Detailed Project Report for the construction of 22 bridge works in 11 districts comprising of 13 ROB/ RUBs in lieu of existing Level Crossings under Railway Works Programme 2016-17 on

50:50 cost sharing basis with Railways, for one Road Over Bridge, nine River Bridges and an Elevated Highway. Alignment has been finalised for one ROB work in addition to the existing RUB at Thillai Ganga Nagar near Alandur. Out of seven River bridges, for alignment and sub-soil investigation for six works have been completed and DPR is being prepared. DPR work for remaining River bridge work across Pennaiyar river connecting Mettupalayam-Melkumaramangalam at Cuddalore district, is completed at a cost of Rs.27.92Crore. An Elevated Highway corridor along Avinashi road from Upplipalayam to Coimbatore International Airport, DPR preparation will be completed in this financial year 2018-19.

2.12.7 DETAILED PROJECT REPORT PREPARATION IN THE YEAR 2017-18

During 2017-18, Government have accorded sanction for Rs. 9.25 crore for the preparation of Detailed Project Report for the construction of 43 works in 20 districts comprising of

- 9 ROBs/ RUBs in lieu of existing Level Crossings under Railway Works Programme 2017-18 on 50:50 cost sharing basis with Southern Railways,
- Reconstruction of RUB at Marapalam,
- Reconstruction of ROB No. 4A near Palanganatham, Madurai city,
- Construction of two ROBs in lieu of LC No 376 and LC No 372 in Pudukottai District,
- construction of 11 River Bridges,
- Reconstruction of 11 River Bridges damaged due to floods,
- 4 Bypasses,
- upgrading link road at Erode,
- providing connectivity between NH-45B from Arumbanur and NH-7 Nagari on northern side of Madurai City ,
- An Elevated Bridge for a length of 5.40 km from Kalingarayan Illam to Thindalmedu at Erode - Perundurai road and

- Construction of Grade separator near Karur bus stand

The DPR preparation works are in process.

2.12.8 LA WORK SANCTIONED IN THE YEAR 2017-18

During 2017-18, Government have accorded sanction for Rs.24.10 crore for the preparation of Detailed Project Report and Land acquisition for providing Alternate route from Pollachi to Coimbatore (via) Chettipalayam and for forming of bypass to Thuraiyur town (Phase II).

2.12.9 SUGARCANE ROAD DEVELOPMENT SCHEME

Utilising the cess fund collected from Sugar Mills by the Agriculture department, formation and improvement of roads leading to sugar mills through sugar cane fields are being taken up.

2.13 CHENNAI OUTER RING ROAD

2.13.1 CHENNAI OUTER RING ROAD – PHASE I

Administrative sanctions have been accorded for the development of Chennai Outer Ring Road (CORR) Project Phase-1 as a Green Field Project with the formation of dual three lanes with service roads for a length of 29.65 Km from Vandalur in NH-45 to Nemilichery in NH-205 Via Nazarathpet in NH-4 at a cost of Rs 1081.40 crore.

Tamil Nadu Road Development Company Ltd has been appointed as the “Managing Associate” for this project.

In the above project the completed length of 27 km of road from Mannivakkam to Nemilichery had been put to public use. Remaining stretch of the project road will be completed on finalization of litigation.

2.13.2 CHENNAI OUTER RING ROAD – PHASE II

The Government have sanctioned the Chennai Outer Ring Project Phase-II, a major six lane road connectivity project to a length of 30.50 Km from Nemilichery in NH-205 to Minjur in Thiruvottiyur - Ponneri - Panchetti (TPP) Road via Padiyanallur in NH-5 at a cost of Rs. 1075 crore under the Design, Build, Finance, Operate and Transfer (DBFOT) mode with Semi Annual Annuity payment.

Tamil Nadu Road Development Company Ltd has been appointed as “Managing Associate” for Chennai Outer Ring Road Project Phase-II.

97% of the project road had been completed and the works in the remaining stretches are in progress except in the stretch where litigation is to be finalized and work to be completed.

2.14 ENNORE MANALI ROAD IMPROVEMENT PROJECT (EMRIP)

The Project envisages the improvement of about 30 Km road network in North Chennai with the objective of establishing seamless and efficient road connectivity from Chennai and Ennore Ports to NH network. The roads that are being improved include the Ennore Expressway, Manali Oil Refinery Road, Northern part of Inner Ring Road and Thiruvottiyur-Ponneri-Panchetti Road.

NHAI, the project lead sponsor, has engaged TNRDC initially as its Managing Associate and subsequently as Supervision Consultant.

This work has been substantially completed except for a small stretch at N.T.O.kuppam and Kasimedu fish drying yard. In these balance stretches, for which a supplemental agreement has been executed on 12.01.2018 and the work is to be completed shortly.

2.15 NORTHERN PORT ACCESS ROAD (CHENNAI PERIPHERAL ROAD PHASE-I)

The proposed Northern Port Access Road is an important link to the fast growing Ennore and Kattupalli Ports which handle major cargo movements. The proposed new road will connect the Northern Gate of Ennore Port with Thatchur on NH-5 and with an additional spur road linking Thiruvottiyur – Ponneri - Panchetti (TPP) Road.

This will also cater to the needs of the recently developed Kattupalli Port by L&T.

The length of this road connecting Ennore Port to Thatchur is about 21.15 km and the TPP link Road is 4.35 km. The work is proposed for execution under JICA loan assistance.

The Government accorded administrative sanction for Land Acquisition for Northern Port access road for a sum of Rs.951 crore. Land acquisition is in process in 15 villages of Ponneri Taluk in Thiruvallur District. Land is being acquired under Highways Act 2001 and notification under clause 15(2) for eight villages published and 15(1) proposal for five villages submitted to Government and under consideration. Land Acquisition process is in progress for the remaining villages.

2.16 CONSTRUCTION OF A FOUR LANE HIGH LEVEL BRIDGE AT ILAYANARKUPPAM IN ECR

The work of Construction of a four lane high level bridge at km 69/300 in ECR road at Ilayanarkuppam at a cost of Rs. 24 crore has announced by the Hon'ble Chief Minister during the budget speech 2017-18.

Based on the announcements, administrative sanction have been accorded for executing the above work at a cost of Rs.23.78 crore. The Tender for the project is under scrutiny.The Work will be commenced soon.

2.17 WIDENING AND PROVIDING RIGID PAVEMENT IN NORTH CHENNAI THERMAL POWER STATION ROAD AND KAMARAJAR PORT ROAD

To provide the logistic support through Port Connectivity for better and efficient freight movement, road infrastructure needs to be augmented to cater to the traffic needs.The TNRDC has taken-up the widening to four lane, the North Chennai Thermal Power Station Road and the road leading to Kamarajar Port Main Gate on deposit terms. The Rigid pavement for a length of 7.2 Km at an estimated cost of Rs.195 crore is to be commenced during this year.

2.18 IMPROVING THE CONNECTING ROAD FROM NH4 TO SOJITZ MOTHERSON INDUSTRIAL PARK AT SINGADIVAKKAM IN KANCHEEPURAM DISTRICT

The road leading to sojitz Motherson Industrial Park at Singadivakkam, Kancheepuram District is to be widened to four lane configuration. The 2.8 Km long Rigid pavement is taken up under Tamil

Nadu Investment Promotion Programme (TNIPP) at a cost of Rs.24 crore during this year. The work is commenced and planned to be completed in 18 months time.

2.19 RAJIV GANDHI SALAI (IT CORRIDOR)

2.19.1 PHASE I:

The Rajiv Gandhi Salai (IT Corridor) Phase-I was developed as a dual three lane road from Madhya Kailash to Siruseri for a length of 20.10 Km. The link road connecting Sholinganallur and East Coast Road for a length of 2.15 Km was also included in the project and was widened to a four lane road. This road is being maintained as a toll road.

2.19.2 PHASE II:

IT Expressway (Rajiv Gandhi Salai) Phase – II extension from Siruseri to Mamallapuram for a length of 25 km with six lane road including two bypasses at Kelambakkam and Tiruporur under PPP mode have been approved by the Government of Tamil Nadu.

The Government have sanctioned Rs.465.13 crore for acquisition of land to an extent of 88.62 hectares in 13 villages for a width of 60m Right of way to suit six lane proposals. Presently, acquisition have been completed in nine villages and the land acquisition is in progress in the remaining villages.

The DPR for a length of 25 Km from Siruseri to Mamallapuram including two bypasses was prepared. The total cost of the project was estimated at Rs.573.99 crore. Administrative Sanction had been accorded for Rs. 243.70 crore for forming two bypasses at Kelambakkam (4.675 km) & Tiruporur (7.45 km) under TNIPP-II. The procurement process completed and work will be commence soon.

2.20 MULTI LEVEL CAR PARKING (MLCP) AT SIRUSERI

The urban planning includes apart from traffic and transportation infrastructure, parking facilities, which are an integral part in the transportation network. In this background, underlining the importance of such an infrastructure, the Honourable Chief Minister of Tamil Nadu

announced the Multi-Level Car Parking (MLCP) at Siruseri, under PPP mode.

Designed with nine floors, housing 632 cars, it also includes a commercial complex. To be executed under DBFOT, the project would cost Rs. 200 crore.

The concession period is fixed as 25 years including 36 months construction period.

The project is under Scrutiny of TNIDB.

2.21 ELEVATED ROAD

The Hon'ble Chief Minister of Tamil Nadu has made an announcement under rule 110 for the construction of an Elevated Corridor from Taramani to Siruseri under Phase-I and from Siruseri to Mahabalipuram under Phase-II, for a total length of 45 Km. Administrative sanction of Rs. 5 crore has been accorded for the preparation of DPR for the above work.

The DPR has been finalized for the construction of Elevated corridor from Taramani to Siruseri. As the Metro Rail is also planned on this corridor, the integration work of both the projects completed. Now, it is planned to take up the construction of the elevated corridor under JICA assistance.

2.22 ORAGADAM INDUSTRIAL CORRIDOR PROJECT

Considering the rapid growth of Industries in and around Oragadam and Sriperumpudur area of Kancheepuram, it was decided to improve the road infrastructure facilities to Oragadam Industrial Park at an estimated cost of Rs.300 crore in Phase-I, Rs.86.65 crore in Phase-II during 2011-12, Rs.115 crore in Phase-III during 2014-15, Rs.189.81 crore in Phase-IV during 2015-16 and Rs.180.09 crore in Phase - V during 2017- 18. The schemes Phase-I & Phase-II are being implemented with the revised estimate cost of Rs.612.82 crore and Rs.108.66 crore respectively.

2.22.1 PHASE-I

The work of Widening and Improvements to Singaperumalkoil – Sriperumpudur road for 24 Km part of SH-57 and Vandalur – Wallajabad road for 33.40 Km part of SH-48, were taken up at a cost of Rs.300 crore in the year 2005-06 for a total length of 57.40 Km including one Grade Separator at the Junction of the above two roads. This scheme is under implementation at a Revised Administrative Sanctioned amount of Rs. 612.82 crore and major portion of work have been completed except certain stretches held up due to Land Acquisition.

Total expenditure incurred in phase-I is Rs. 562.13 crore which includes an expenditure of Rs. 251.80 crore for Land acquisition.

2.22.2 PHASE-II

The work of Improvements from four laning to six laning of Singaperumalkoil – Sriperumpudur road from Km 12/6 to 24/6 was taken up during 2011-12 at a cost of Rs. 86.65 crore. This scheme is under implementation at a revised cost of Rs. 108.66 crore. Out of 12 Km, 11.20 Km has been completed. The balance 0.80 Km, held up due to Land Acquisition and Court Cases will be completed in this financial year.

An expenditure of Rs. 96.41 crore has been incurred so far.

2.22.3 PHASE-III

During the year 2014 -15 under this phase the work of Improvements from four laning to six laning of Singaperumalkoil – Sriperumpudur road km 0/6 – 12/6 was taken up for implementation at a cost of Rs. 115 crore.

Out of 12 Km, 11.70 Km have been completed. The balance work held up due to Land Acquisition and Court Cases will be completed in this financial year. An expenditure of Rs. 106.77 crore has been incurred so far.

2.22.4 PHASE-IV

The work of Improvements from four laning to six laning of Vandalur to Wallajabad road km 30/400 – 47/000 including Land Acquisition for formation of Padappai Bypass Road upto Oragadam was taken up for implementation during 2015-16 at a cost of Rs. 189.81 crore and 90% of works have been completed. The balance work will be completed in this financial year. An expenditure of Rs. 130.72 crore has been incurred so far.

2.22.5 PHASE-V

The work of Improvements from four laning to Six laning of Vandalur – Wallajabad Road km 47/0 – 63/8 for 16.80 km has been taken-up for implementation during 2017 -18 at a cost of Rs.180.09 crore. The work has commenced.

2.23 FOUR LANING OF MADURAI RINGROAD

The work of Widening the Madurai Ring Road from double lane to four lane from Km 0/0 – 27/0 has been taken up for implementation during 2015-16 under BOT Toll basis at a cost of Rs.213.69 crore whereas grant from Tamil Nadu Government is Rs. 80 crore. In this project, the existing two lane is being developed into four lane carriage way. In respect of Bridges, two ROBs (near Veerganur and Kappalur) and one High Level bridge across Vaigai River have also been taken up to cater the additional two lane traffic.

Agreement for this work has been entered for a Concession period of 20 years including the Construction Period of two Years. Now 40% of work has been completed.

2.24 RESEARCH WORKS UNDER TANII SCHEME

During the year 2016-17 the following two research schemes were taken up for Rs. 283.70 lakh under Tamil Nadu Innovation Initiatives Fund by Highways Research Station.

1. Study on performance of Bituminous pavement laid over stabilized sub base

2. Accident study for vulnerable road users

An expenditure of Rs. 260.71 lakh for the work has been done so far. An amount of Rs.11 lakh has been sanctioned for 2018-19 financial year. Balance works are in progress.

For 2017-18 financial year, Rs. 255 lakh has been sanctioned under Tamil Nadu Innovation Initiatives Fund by Highways Research Station for the following three research works.

1. Bridge instrumentation for Structural Health Monitoring System.
2. Study on Improving the sub-grade soil by adding quarry dust.
3. Study on the technology of long lasting pavement including Construction Circular Test for Model Study.

An expenditure of Rs.29.82 Lakhs for the work has been done so far. An amount of Rs.235 Lakhs has been sanctioned for 2018-19 financial year. Balance works are in Progress.

For 2018-19 financial year Rs.4 Lakhs has been sanctioned under Tamil Nadu Innovation Initiatives fund by Highways Research Station for the following research work.

1. Study on effect of Nano clay in Bituminous Mixes.

The results of the studies will be helpful in improving the construction of roads & bridges in the State.

2.25 DESIGN WORKS COMPLETED

2.25.1 WORKS COMPLETED DURING 2017-18:

Totally 60 works have been completed. This includes Road Over Bridges / Road Under Bridges / River Bridges / Grade Separators / revisions / modifications.

2.25.2 PROGRAMME FOR 2018-19

During the current year 70 works are taken up. This includes preparation of design, drawings and estimate for 29 Road Over Bridges / Road Under Bridges, 21 River bridges, three grade-separator and one Pedestrian Over Bridge. Proof-checking of DPR works prepared by consultants for four Grade Separator, four Road Over Bridges / Road Under Bridges and eight River bridges totaling 16 works are also in progress.

In addition to the above, works to be received during the financial year 2018-19 are also to be taken up.

2.26 TAMIL NADU ROAD SECTOR PROJECT (TNRSP)

The Government has formed Tamil Nadu Road Sector Project-II for upgrading high traffic road corridors in the state. Loan and project Agreement for \$300 Million were signed with the World Bank. This project covers road up gradation, maintenance, Institutional Capacity Enhancements and Road Safety measures.

2.26.1 UP GRADATION AND MAINTENANCE THROUGH (EPC) CONTRACTS

Under Engineering Procurement Construction Contract (EPC) 427.66 Km of two lane with paved shoulders under in 10 packages have been signed for an amount of Rs.1705 crore and works are in progress. Out 10 packages two packages EPC-05 & 07 have been completed. Four Packages will be completed in June 2018, one Package will be completed in September 2018 and remaining three Packages will be completed in December 2018.

2.26.2 MAINTENANCE THROUGH MULTI-YEAR OUTPUT AND PERFORMANCE-BASED MAINTENANCE CONTRACTS (OPRC):

Maintenance of approximately 597 Km of Core Road Network (CRN) upgraded under TNRSP-I viz., Arcot- Tiruvarur & Nagapattinam-Thoothukudi stretches for a period of five years, at a cost of Rs.220 crore are in progress.

2.26.3 UP GRADATION AND MAINTENANCE THROUGH PUBLIC PRIVATE PARTNERSHIP (PPP)

Widening of roads in Core Road Network to four lane standards are proposed to be taken up through PPP under modified annuity mode. Agreement has been executed for PPP-02 and PPP-03 for a length of 115.84 Km. The tender for PPP-01 30.60 Km will be invited shortly due to stay vacated by the Hon'ble High court.

2.26.4 CONSULTANCY SERVICES

Three consultancy services have been engaged to supervise the EPC 01 to 10 contract packages and one consultant has been engaged to monitor the OPRC 01 &02 Contracts. An amount of Rs.132.71 crore has been provided for procurement of consultancy / advisory services, third party audit consultancy, Front End Fee and Project Contingencies. To monitor the work of PPP project consultancy service will be engaged.

2.26.5 INSTITUTIONAL CAPACITY ENHANCEMENT

To accelerate the road development in the State, various institutional capacity enhancement works are taken up under this Project and will be implemented through ICERS cell.

RUSS, Amendment to Tamil Nadu Highways Act- 2001, Exploring best principles in Human Resource Management utilizing the services of Anna Institute of Management, Process Re-Engineering and Training need assessment & Management for effective resource utilization in Highways Department contract have already been awarded to the consultant and for remaining one task, i.e., IT-ICT related procurements and e-pathai enhancement in Highways Department, consultancy service will be engaged shortly.

2.26.6 ROAD SAFETY

Government have accorded approval for various tasks to be taken up under Road Safety Component of this Project.

Road Safety Management Consultant is engaged through ICERS Cell to develop State Level Strategic investment plan, District level

improvement plan and selected corridor improvement plan for various stake holder departments i.e., Highways, Transport, Police, Health and Education.

Training for senior officers and staff of various stakeholder departments and Highways Engineers in Road Safety are also being organised by ICERS Cell.

2.26.7 LAND ACQUISITION (LA) AND RESETTLEMENT AND REHABILITATION (R& R)

A Resettlement Policy Frame work (RPF) has been prepared for the project in line with the new Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) ACT 2013 and the World Bank Operational guidelines and the same is approved by the Government. This is being implemented.

2.26.8 FUND ALLOCATED AND EXPENDITURE

Table 12. Tamil Nadu Road Sector Project II (Rs. in lakh)

NAME OF THE SCHEME	2017-2018		2018-19 Budget Estimate
	Budget Estimate	Expenditure	
TNRSP	150809.700	87865.700	50313.240
Total	150809.700	87865.700	50313.240

II. MINOR PORTS WING

3. TAMIL NADU MARITIME BOARD

Tamil Nadu has a coast line of about 1076 Kms. Along this coastline, there are three Major Ports, namely, Ennore, Chennai and Tuticorin notified under the Major Port Trust Act, 1963 and 19 Non-Major (Minor) Ports notified under the Indian Ports Act 1908. The major ports come under the control of Government of India and the non-major ports come under the control of the State Government.

M/s. Chemplast Sanmar Ltd., import Vinyl Chloride Monomer (VCM) for their P.V.C. factory established at Cuddalore SIPCOT Complex through their Captive Marine Terminal Facility (MTF) located within the port limits of Cuddalore Minor port.

M/s Chennai Petroleum Corporation Ltd., (CPCL) export Petroleum Products from their Narimanam (Nagapattinam District) refinery through their captive open sea jetty located within the port limits of Nagapattinam port. Edible oil import take place at Nagapattinam port regularly.

Small ships are piloted through Pamban Channel. Kanyakumari and Rameswaram ports are used for short trip passenger ferry service.

3.1 COMMODITIES HANDLED IN MINOR PORTS.

Table 13. Commodities Handled in Minor Ports

(In Metric Tonnes)

Sl.No	Name of the Port	Shipped / Landed	No.of Ship	Commodity	Quantity of cargo	Total
1.	Ennore Minor Port	Landed	5	Liquid Ammonia	31516	31516
2.	Kattupalli Port	Landed	33	Steel / Iron	205097	209493
			16	Machineries	4196	
			1	HSD	200	
		Shipped	16	Machineries	11442	129309
			5	Steel	91550	
			4	Granite	22817	
3.	Cuddalore Port	Landed	36	Vinyl Chloride Monomer	282534	282539
			-	Miscellaneous	4	
			-	Machineries	1	
		Shipped	-	Petroleum Products	90	2263
			-	Steel	2	
			-	Miscellaneous	2169	
4.	Nagapattinam Port	Landed	-	Crude Oil	894	79195
			9	Petroleum Products	48,351	
			1	CPO	6,950	
			8	RBD Palm Oil	23000	
		Shipped	19	Naphtha	196093	364771
			13	HSD	166962	
5.	Thirukkadaiyur Port	Landed	-	Gas	1919	4323
			-	Crude Oil	2404	
Total		Landed	109		607066	1103409
		Shipped	58		496343	
Grand Total			167		1103409	1103409

Table 14: Commodities Handled in Minor Ports

(In Units)

Sl.No	Name of the Port	Shipped / Landed	No.of Ship	Commodity (Container)	Quantity of cargo	Total
1.	Kattupalli Port	Landed	10	Heavy Motor Vehicle	287	300
			-	Light Motor Vehicle	13	
		Shipped	1	Heavy Motor Vehicle	97	4154
			2	Light Motor Vehicle	4057	
		Landed	313	20 Ft Loaded	49081	93874
				40 Ft Loaded	38654	
				20 Ft Empty	1760	
				40 Ft Empty	4379	
		Shipped	313	20 Ft Loaded	84838	247973
				40 Ft Loaded	77910	
				20 Ft Empty	57615	
				40 Ft Empty	27610	
Total	Landed	326		94174	346301	
	Shipped			252127		
Grand Total			326		346301	346301

3.1.1 PAMBAN PORT

The activity at this port is to pilot small drafted vessels passing through Pamban Channel in the Gulf of Mannar. 220 vessels were piloted at this port during the year 2017-2018.

3.1.2 RAMESWARAM PORT

A short distance passenger ferry service near Agnitheertham in Rameswaram is operated. 1,62,853 passengers were ferried during the year 2017-2018.

3.1.3 KANYAKUMARI PORT

Ferry service between shore and Vivekananda Rock Memorial / Ayyan Thiruvalluvar Statue is operated by M/s. Poompuhar Shipping Corporation Limited. Tamil Nadu Maritime Board is supervising the ferry service and derive establishment charges from the Corporation 21,85,552 passengers were ferried during the year 2017-2018.

3.1.4 CARGO TRAFFIC

In the year 2017-2018, about 11,03,409 MT of cargo, 3,41,847 Nos of containers and 4454 vehicles have been handled through 493 vessels in the Minor Ports.

4. POOMPUHAR SHIPPING CORPORATION LIMITED

Poompuhar Shipping Corporation Limited (PSC) was formed on 11.04.1974 under the Companies Act, 1956 with the objective of transporting the coal required for the thermal power stations of the Tamil Nadu Generation and Distribution Corporation (TANGEDCO). PSC has acquired three specially designed shallow draft 45000 MT vessels each between August 1985 and January 1987 which are exclusively utilized for this purpose.

In addition to its own three ships, PSC also charters ships from Private Shipping Companies to transport the coal required by TANGEDCO for the various Thermal Power Stations in Tamil Nadu.

4.1 MOVEMENT OF COAL

4.1.1 COAL MOVEMENT FOR TANGEDCO

The coal required by TANGEDCO is transported from the load ports at Haldia, Paradip and Vizag and discharged at Ennore and Tuticorin.

4.1.2 COAL MOVEMENT FOR NTECL

The corporation is also transporting coal through chartered vessels for NTPC Tamil Nadu Energy Company Ltd., (NTECL), a joint venture Company of TANGEDCO and NTPC, from the load ports of

ParadipandDhamra to Ennore for their three Units of 500 MW thermal power stations at Vallur and North Chennai, as per the Memorandum of Understanding.

The details of linkage of coal, arrival of coal at load ports and coal moved by own and chartered vessels for the last two years are as follows:

Table 15: COAL MOVEMENT

Year	(In lakh Metric Tonnes)					Achievements
	Target for coal movement	Coal arrived at load ports	Coal moved by chartered vessels	Coal moved by own vessels	Total coal moved	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2015-16	262.51	192.63	159.49	32.52	192.01	99.68%
2016-17	272.25	171.86	135.02	34.35	169.37	98.55%
2017-18	210.98*	174.11*	148.58*	25.53*	174.11*	100%

*2017-18 Estimate Qty

4.2 PHYSICAL AND FINANCIAL PERFORMANCE

4.2.1 PHYSICAL PERFORMANCE

Physical performance of own and chartered vessels for the period 2016-2017 and 2017-18 are as follows:

Table 16: PHYSICAL PERFORMANCE

	2016-17	2017-18
OWN VESSELS		(Up to Jan-18)
No. of vessels	33	20*
No. of voyages	77	44*
Quantity of coal moved (in lakh MT)	34.35	19.44*
Average quantity of coal moved per voyage in MT	44610	44185
CHARTERED VESSELS		
No. of Vessels	117	110*
No. of voyages	219	210*
Quantity of coal moved (in lakh MT)	135.02	134.86*

Average quantity of coal moved per voyage in MT	61652	64220*
Total quantity moved (in lakh MT)	169.37	154.34*

*2017-18 Up to Jan-18

4.2.2 FINANCIAL PERFORMANCE

The overall financial performances of the corporation during the last three financial years are as follows:

TABLE 17: FINANCIAL PERFORMANCE OF PSC

(Rs.in crore)		
Year	Turn Over	Profit
2015-16	554.38	6.60
2016-17	427.15	4.71
2017-18	450.00*	4.50*

*2017-18 provisional

4.3 KANNIYAKUMARI FERRY SERVICE

Besides transporting of coal to TANGEDCO and NTECL, PSC is also operating ferry services from the shore of Kanniyakumari to Vivekananda Rock Memorial and the Ayyan Thiruvalluvar Statue. The physical and financial performances of the ferry service for the last two years are given below:

Table 18: PHYSICAL & FINANCIAL PERFORMANCE OF FERRY SERVICE

	2016-2017	2017-18
No. of Ferry in service	3	3*
No. of Passengers ferried (In lakh)	21.00	21.32*
Fare collection (Rs. in lakh)	697.46	931.64*
Operational Profit (Rs. in lakh)	187.82	234.36*

*provisional

Edappadi K. Palaniswami
Chief Minister

