



GOVERNMENT OF TAMIL NADU

HIGHWAYS AND MINOR PORTS
DEPARTMENT

DEMAND NO. 21

PERFORMANCE BUDGET
2018-2019

PERFORMANCE OF HIGHWAYS AND MINOR PORTS DEPARTMENT DURING 2018-2019

I. HIGHWAYS DEPARTMENT

1. INTRODUCTION

The development of road infrastructure enables better connectivity and safe journey. In turn, the connectivity with quality road network contributes to the socio- economic growth of the State. The road infrastructure is the foundation for equitable growth of all sectors and the connectivity to the neighbouring States have helped in ushering growth in trade and communication.

Apart from construction, timely maintenance paves way for longevity and durability of roads. Widening / improvements of roads, construction of bridges, flyovers, grade-separators, high level bridges, formation of bypasses, etc., are undertaken by the department.

The detailed physical and financial performance of the department during 2018 - 19 is given below:

1.1 ASSETS MAINTAINED BY HIGHWAYS DEPARTMENT

The Highways Department maintains Government roads to a length of 66,039km. 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 Roads		Length in km
National Highways (NH)	Maintained by NH wing	1900
	Maintained by NHAI	4734
	NH Total	6634

Classification of Roads	Length in km
State Highways (SH)	11169
Major District Roads (MDR)	11612
Other District Roads (ODR)	36624
Total length of roads other than NH	59405
Grand Total	66039

TABLE 2: TYPES OF BRIDGES AND THEIR NUMBERS

Types of Bridges	Nos.
Major Bridges and Minor Bridges*	8973
Culverts	122583
Road Over Bridges at Railway level crossing(ROB)	133
Road Under Bridges at Railway level crossing (RUB)	57
Pedestrian Sub Way	14
Total	131760

* 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	6632	-	6634
2	State Highways	23	11146	-	11169
3	Major District Roads	32	11580	-	11612
4	Other District Roads	108	36516	-	36624
	Total	165	65874	-	66039

TABLE 4: LANE-WISE DETAILS OF ROADS

length in km

S. No.	Classification of Roads	Single lane	Inter mediate lane	Double lane	Multi lane	Total
1	National Highways					
	a) National Highways wing	-	-	1608	292	1900
	b) National Highways Authority of India	-	-	1906	2828	4734
	Sub-Total	-	-	3514	3120	6634
	Percentage of lane-wise width of roads	-	-	53%	47%	
2	State Highways	38	215	8570	2346	11169
	Percentage of lane-wise width of roads	0%	2%	77%	21%	
3	Major District Roads	321	7186	3869	236	11612
	Percentage of lane-wise width of roads	3%	62%	33%	2%	
4	Other District Roads	30490	4960	1103	71	36624
	Percentage of lane-wise width of roads	83%	14%	3%	0%	
	Total	30849	12361	17056	5773	66039
	Percentage of lane width to the total length of roads	46%	19%	26%	9%	

1.2 PERFORMANCE UNDER PLAN SCHEMES

1.2.1 Financial Performance

The financial performance under the plan schemes for the year 2018-19 and Budget Estimate for the year 2019-20 are given in **Table 5**.

TABLE 5: Financial Performance

Rs. in lakh

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
Construction and Maintenance				
State Highways				
1	Bridges	1188.92	1214.52	1188.93
	(Part II Scheme)			
2	Roads	0.05	0.02	0.02
	(Part II Scheme)			
Sub-Total		1188.97	1214.54	1188.95
Major District Roads				
3	Major District Roads (Part II Scheme)	0.00	0.00	0.01
Sub-Total		0.00	0.00	0.01
Other District Roads				
4	Other District Roads (Part II Scheme)	0.01	27.07	0.02
Sub-Total		0.01	27.07	0.02
Comprehensive Road Infrastructure Development Programme				
5	CRIDP – SH	124948.00	124492.78	132218.00
6	CRIDP – MDR	61787.00	61728.37	70742.30
7	CRIDP – ODR	99484.00	119345.64	141304.70
8	CRIDP – ODR (SCP)	26196.00	25680.38	20000.00
Sub-Total		312415.00	331247.17	364265.00
9	CRIDP – Improvement to Riding Quality	40000.00	58778.69	40000.00
10	CRIDP – PBMC Virudhunagar	27585.00	14108.25	52778.00
11	Improvement to Chennai Radial Roads	0.01	667.19	0.01
12	Acquisition of lands for bypasses			

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
	(i) Works	0.00	0.00	0.00
	(ii) Lands	17571.08	9627.61	13268.64
	Sub- total	17571.08	9627.61	13268.64
13	Acquisition of lands for bypasses-KC			
	(i) Works	14129.04	4705.98	6829.01
	(ii) Lands	19541.01	432.25	34926.92
	Sub- total	33670.05	5138.23	41755.93
14	Improvement of vital roads in industrial areas through Tamil Nadu Road Infrastructure Development Corporation			
	(i) Works	13224.01	3000.00	10161.03
	(ii) Lands	3530.01	0.00	3529.00
	Sub-Total	16754.02	3000.00	13690.03
15	Externally Aided Project-Formation of CPRR with JICA assistance	0.00	0.00	66000.00
16	Widening to four lane of Madurai road through TNRIDC	5000.00	6790.00	1859.71
17	Chennai Outer Ring Road (Phase-I)	15216.04	15184.02	12968.12
18	Chennai Outer Ring Road (Phase-II)			
	(i) Works	26818.24	25902.93	23670.00
	(ii) Lands	0.00	0.00	2500.00
	Sub-Total	26818.24	25902.93	26170.00
19	Construction of Buildings	0.10	0.00	590.08
20	Upgradation of IT Highway in Chennai	0.01	0.00	0.01

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
21	Schemes implemented under State Infrastructure and Amenities Fund by CE(H) C&M	393.00	3917.23	6278.80
22	Special Project for Road Safety	10000.00	9523.45	10000.00
23	Palar bridge in ECR road by TNRSP	0.01	0.00	0.00
24	Northern Port Access Road			
	(i) Works	60.00	60.00	25.00
	(ii) Lands	20000.00	10000.00	20000.00
	Sub-Total	20060.00	10060.00	20025.00
25	Bypasses to Kelambakkam Thiruporur in Rajiv Gandhi Salai with JICA assistance TNIPP Ph-II	10000.00	7500.00	10370.00
26	Construction of CE Quarters	0.01	0.00	0.01
27	City Traffic Improvement works	3872.83	723.34	4817.82
28	High Density Corridor	4207.87	2009.08	1892.62
29	Construction of flyover at Salem junction-Yercaud Road	21724.21	15920.26	2235.78
30	Widening from Intermediate Lane to Four Lane and Strengthening of Puduvoyal-Pulicat Road (TNIPP-II)	2500.00	1372.97	2578.74
31	Asian Development Bank assistance Chennai – Kanyakumari Industrial Corridor project			
	(i) Works	5000.00	1186.91	30000.00
	(ii) Lands	7500.00	0.00	50000.00

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
	Sub-Total	12500.00	1186.91	80000.00
	Total	581476.46	523898.94	772733.28
32	Tsunami Rehabilitation scheme (centrally assisted)	0.01	0.00	0.01
	Total	581476.47	523898.94	772733.29
	Highways Research Station			
33	Institute of Highways Research and Management JD	0.01	0.00	0.00
34	Operation and Maintenance of Road Measurement and data acquisition system in respect of ODR and NH roads JF	5.40	3.29	6.10
35	Tamil Nadu Innovation Initiatives Fund (TANII) for 2016-17 JG	11.00	11.00	12.00
36	Tamil Nadu Innovation Initiatives Fund (TANII) for 2017-18 JI and JK	235.00	156.48	83.00
37	Tamil Nadu Innovation Initiatives Fund (TANII) for 2018-19 JL	4.00	4.00	0.00
38	Operation and Maintenance of Advanced Data Collection Equipments JM	24.87	12.15	19.81
	Total	280.28	186.92	120.91
	NABARD and Rural Roads Wing			
39	Improvements to District and Other District Roads with Loan Assistance from NABARD – JK	198.01	32.05	0.12

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
40	Bridges on Government roads – JX	0.01	84.99	0.01
41	Construction of bridges in Government and Rural roads – JZ	25000.01	11510.74	29960.01
42	Rural Roads Improvement Scheme - JI	27.31	0.00	0.02
43	Bus Route Improvement Scheme – JJ	0.02	0.00	0.02
44	Special Component Plan for Scheduled Caste Scheme – JA	0.02	0.00	0.02
45	ADB assisted Projects (TEAP) – RN	0.01	1.57	0.01
46	By-pass works (LA) - KA	3052.00	1661.13	1132.00
47	Upgradation of Panchayat Roads / Panchayat Union Roadsto ODR standard(Infrastructure Fund) – KD	47500.00	43699.53	105000.00
48	Upgradation of Panchayat Roads / Panchayat Union Roads to ODR standard (NABARD loan assistance Fund)– KE	20000.00	0.00	0.01
	Total	95777.39	56990.01	136092.22
Projects Wing				
49	Construction of Over and Under Bridges in lieu of existing level crossings JJ	24142.78	8583.79	27903.95
50	Construction of ROB in Chennai Metro Area for Traffic Management JD	1028.00	388.74	20.06

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
51	Construction / Reconstruction of bridges JE	8356.82	2708.73	3831.97
52	Construction / Reconstruction of bridges and improvement of roads with loan assistance from NABARD JQ	0.04	0.00	0.05
53	Provision for road works under TNUDP JN	4381.04	531.73	2000.02
54	Construction of Road Over Bridge/Road Under Bridge in lieu of level crossings JT	27223.86	13192.52	31956.87
55	Construction of Over and Under Bridges in lieu of existing level crossings JG	5144.24	5755.38	12800.81
56	Construction of Bridges with loan assistance from HUDCO (Land acquisition payment) – JB	0.01	0.00	0.01
57	Comprehensive Road Infrastructure Development Programme (CRIDP) - Formation of Bypasses – JO	0.00	0.00	3586.17
	Total	70276.79	31160.89	82099.91
	Metro Wing			
58	Chennai Metropolitan Development Plan	47218.01	25954.74	57421.90
	Total	47218.01	25954.74	57421.90
	National Highways			
59	Revamped Central Road Fund – SA	80000.00	59941.00	80000.00
60	Bharat Nirman Scheme (Maintenance borne by State Government)-JS	744.09	527.47	503.36

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
	Total	80744.09	60468.47	80503.36
Tamil Nadu Road Sector Project				
61	TNRSP	48283.79	37594.62	45973.64
	Total	48283.79	37594.62	45973.64
Director General				
62	Operation and Maintenance of Advanced Data Collection Equipment (ADCEs) in respect of SH/MDR/NHAI roads	0.02	0.00	0.02
	Total	0.02	0.00	0.02
	Grand Total	924056.84	736254.59	1174945.25

1.2.2 Physical Performance

The physical achievements under the plan schemes for the year 2018-19 and targets for the year 2019-20 are given in **Table 6.**

TABLE 6: Physical Performance

Bridges/Culverts in Nos., length in Km.

S. No.	Name of Scheme	Achievements (2018-19)		Targets (2019-20)	
		Bridges/Culverts/Structures	Roads length	Bridges/Culverts/Structures	Roads length
Construction and Maintenance					
1	Comprehensive Road Infrastructure Development Programme				
	State Highways	250	684	350	800
	Major District Roads	261	773	280	900
	Other District Roads	439	2653	500	2800
	Other District Roads (Special Component Plan)	0	680	13	600
	Sub-Total	950	4790	1143	5100

S. No.	Name of Scheme	Achievements (2018-19)		Targets (2019-20)	
		Bridges/ Culverts/ Structures	Roads length	Bridges/ Culverts/ Structures	Roads length
	IRQP	-	2660	-	2800
	Roads/ Bridges	950	7450	1143	7900
	Buildings	-	-	6	-
	Tsunami – Rehabilitation Scheme (Centrally assisted)	-	-	-	-
	NABARD and Rural Roads Wing				
2	Improvements to District and Other District Roads with Loan Assistance from NABARD	-	5.80	-	-
3	Bridges on Government roads	1	-	-	-
4	Construction of bridges in Government and Rural roads	50	-	65	-
5	Rural Roads Improvement Scheme	-	-	1	-
6	Bus Route Improvement Scheme	-	-	-	-
7	Special Component Plan Scheme	-	-	-	-
8	ADB assisted Projects (TEAP)	-	-	-	-
9	Bypass works (LA)	-	-	-	-
10	Upgradation of Panchayat Roads/ Panchayat Union Roads to ODR standard (State Fund)	-	1322.39	-	1634.59

S. No.	Name of Scheme	Achievements (2018-19)		Targets (2019-20)	
		Bridges/ Culverts/ Structures	Roads length	Bridges/ Culverts/ Structures	Roads length
11	Upgradation of Panchayat Roads/ Panchayat Union Roads to ODR standard (NABARD loan assistance Fund)	-	-	-	-
	Total	51	1328.19	66	1634.59
	Projects Wing				
12	Road Over/ Under Bridges in lieu of existing Level Crossings -JJ	4	0	4	0
13	Construction of Over Bridges/ Under Bridges in lieu of level crossings -JT	2	0	6	0
14	Construction / Reconstruction of bridges JE	2	0	1	0
15	Construction of Over and Under Bridges in lieu of existing level crossings - JG	0	0	4	0
16	Comprehensive Road Infrastructure Development Programme (CRIDP)				
(16i)	State Highways (JI - CRIDP)	1	0	0	0
(16ii)	Other District Roads (JU - CRIDP)	0	0	1	0
	Total	9	0	16	0
17	Chennai Metropolitan Development Plan				
	a) ROB/RUBs	0	0	1	0
	b)Grade Separators	0	0	6	0
	c) River Bridges	1	0	1	0

S. No.	Name of Scheme	Achievements (2018-19)		Targets (2019-20)	
		Bridges/ Culverts/ Structures	Roads length	Bridges/ Culverts/ Structures	Roads length
	d) FOB/Skywalk	0	0	1	0
	e) Roads/ Bridges	0	0	0	2.63
	Total	1	0	9	2.63
	National Highways				
18	Revamped Central Road Fund Scheme	2	618.84	5	800.00
19	Inter State Connectivity Scheme	-	62.00	-	41.20
	Total	2	680.84	5	841.20

1.3 PERFORMANCE UNDER NON-PLAN SCHEMES

An allocation of Rs.955.28 Crore was made for maintenance of roads and bridges and renewal of 3284 km length of roads has been completed at an expenditure of Rs.970.79 Crore.

1.3.1 Financial Performance

The financial performance indicating the details of expenditure incurred during 2018-19 under various heads of Non Plan and allocation for 2019-20 is given in **Table 7**.

TABLE 7: Non Plan-Financial Allocation and Expenditure

Rs.in lakh

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate 2019-20
		2018-19		
1	National Highways Urban	234.52	234.48	250.94
2	Maintenance of Certain important Roads in the City of Chennai	2110.64	2910.63	2321.70
3	State Highways	17724.77	18074.91	19367.50

S. No.	Name of Scheme	Budget Estimate	Expenditure	Budget Estimate
		2018-19		2019-20
4	Major District Roads	16362.09	16491.49	17594.67
5	Other District Roads	57153.28	57491.51	61905.84
6	Sugarcane Roads	1849.79	1833.06	2034.77
7	Improvements to Nilgiris Ghat Roads	92.50	42.64	100.78
	Total	95527.59	97078.72	103576.20

1.3.2 Physical Performance

The length of roads renewed under Non plan maintenance during 2018-19 and the target for 2019-20 is given in **Table-8**.

TABLE 8: Physical Performance of Non Plan Schemes

Length in km

S. No.	Name of wing	Achievement 2018-19	Target 2019-20
1.	Construction and Maintenance	3284	3300

2. PERFORMANCE UNDER MAJOR SCHEMES AND DETAILS OF KEY PROJECTS

During the year 2018-19, an amount of Rs.4751.28 **Crore** was provided in the Budget Estimate for Highways Department and the expenditure incurred under Plan Schemes is Rs.4542.75 Crore.

2.1 COMPREHENSIVE ROAD INFRASTRUCTURE DEVELOPMENT PROGRAMME (CRIDP)

The augmentation of capacity of roads to meet the traffic demands also includes works like road widening, strengthening, improving the riding condition of roads, forming of bypasses, culverts, road safety works etc. To meet the prime objective of enhancing road safety, geometric improvements, improving accident-prone spots, etc., are undertaken. All the above are taken-up under CRIDP.

During 2018-19, road works to a length of 4790 km and 950 Bridges / Culverts / Protective works have been completed incurring an expenditure of Rs.3312.47 Crore. Under IRQP component, an expenditure of Rs.587.79 Crore was incurred and a length of 2660 km has been completed.

2.1.1 CRIDP – State Highways

New works of widening and improvements to 445.10 km length of roads, construction of 12 bridges / culverts and 333 protective works were sanctioned in 2018-19 at a cost of Rs.703.77 Crore and are under progress.

In addition, during 2018-19, widening / improvements to 728 km length of roads and construction of 157 bridges/ culverts / protective works were also taken-up as spill-over works at a cost of Rs.1227 Crore.

During 2018-19, widening / improvements in 684 km length of roads and 250 bridges / culverts / protective works have been completed at an expenditure of Rs.1244.93 Crore.

2.1.1.1 Construction of Grade Separator near Erode Government Hospital Junction

During 2016-17, Government have accorded Administrative Sanction for Rs.58.54 Crore for construction of Grade Separator at km1/8 of Erode – Perundurai – Kangeyam Road near Erode Government Hospital Junction. The bridge work had been completed and opened to traffic during 2/2019.

2.1.1.2 Construction of High Level River Bridge across River Thamirabarani at Tirunelveli

In 2017-18, Government have 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

During 2018-19, widening and improvements to 659.03 km length of roads, construction of 17 bridges / culverts and 262 protective works were sanctioned at a cost of Rs.607.94 Crore and are being implemented.

During 2018-19, Spill-over works of widening and improvements to 779 km length of roads and construction of 134 bridges / culverts / protective works were also taken-up at a cost of Rs.481 Crore.

Widening / improvements in 773 km length of roads and 261 bridges / culverts / protective works have been completed at an expenditure of Rs.617.28 Crore in the year 2018-19.

2.1.2.1 Construction of High Level River Bridge across Surplus Canal of Wellington Reservoir in Cuddalore District

In 2017-18, Government have 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 and the work is in progress.

2.1.3 CRIDP –Other District Roads

New works of widening and improvements to 1878.09 km length of roads, construction of 38 bridges/ culverts and 527 protective works have been sanctioned at a cost of Rs.1145.93 Crore in the year 2018-19 and are under progress.

During 2018-19, spill-over works costing to the tune of Rs.1669 Crore comprising of widening and improvements to 2679 km length of roads and construction of 229 bridges / culverts / protective works were taken-up.

Widening and improvements in 2653 km length of roads and 439 bridges / culverts / protective works have been completed in the financial year 2018-19 at an expenditure of Rs.1193.46 Crore.

The Government have accorded Administrative Sanction for the following High Level Bridges (HLBs) under CRIDP – ODR:

1. Construction of High Level Bridge across Noyyal River near Chikkana College, Tiruppur for Rs.3.85 Crore.
2. Construction of High Level Bridge across the river Virusuli at km 2/8 of Kannankudi – Kookudi road at Sivagangai for Rs.9 Crore.
3. Construction of High Level Bridge across the river Cheyyar at Km 0/8 of Thandarai – Eraiyur road at Thiruvannamalai District for Rs.17.04 Crore.
4. Reconstruction of High Level Bridge across the river Thenpennai at km 2/6 of VCC road to Pathakotta road in Krishnagiri District for Rs.2.85 Crore.
5. Construction of High Level Bridge across the river Sankaraparani at Km 1/8 of Rettanai – Marur road in Villupuram District for Rs.8.61 Crore.
6. 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 in Villupuram District for Rs.8.65 Crore.
7. Construction of High Level Bridge across the river Gedilam at km 5/0 of Arungkurukkai Road branching at km 59/10 of Cuddalore - Chittoor road in Villupuram District for Rs.10.05 Crore.
8. Construction of High Level Bridge across the river Vaigai connecting Paravai in SHU-100 and Thuvarimanin Madurai-Melakkal road in Madurai District for Rs.16.13 Crore.
9. Forming and improving road on the left bank of Vaigai river from Kuruvikaran Salai Bridge to PTR Bridge in Madurai District (km. 0/0 - 1/4) for Rs.14.85 Crore.

All the above works are in progress.

2.1.4 CRIDP - Other District Roads – Special Component Plan

New works of widening and improvements to 414.16 km length of roads, construction of 13 bridges / culverts / protective works were sanctioned in 2018-19 at a cost of Rs.228.31 Crore and are being implemented.

Spill-over works of widening / improvements to 610 km length of roads and construction of 17 bridges / culverts were taken-up in the year 2018-19 at a cost of Rs.224 Crore.

Road works to a length of 680 km have been completed during 2018-19 at an expenditure of Rs.256.80 Crore.

2.1.5 Erode Outer Ring Road

The Government have sanctioned Erode Outer Ring Road from Kokkarayanpettai to Thindal, Erode for a total length 14.80 km, involving Phase I, II & III. The Project involves construction of a High Level Bridge across Cauvery River under Phase I (km 0/0 to 2/2) and 5.40 km under Phase II (km 2/2 to 7/6), both of which were completed and opened for traffic. Administrative Sanction was accorded for Rs.69.30 Crore for Phase III (km 7/6-14/8) with a ROB (km 11/2 – 11/6). But for a length of 815m which involves LA related litigation, all other works have been completed.

2.2 CHENNAI METROPOLITAN DEVELOPMENT PLAN (CMDP)

The Chennai Metropolitan Development Plan (CMDP) is being implemented since 2003-04 through the State Budgetary resource, executing major projects identified under Comprehensive Traffic and Transportation Study (CTTS), on priority basis.

During 2018–19, an amount of Rs.259.55 Crore has been spent for these works under CMDP Plan. Further an expenditure of Rs.20 Crore has been incurred for ROB / RUBs under Project wing's head of account. The details of expenditure made under various head of accounts based on allocation of funds are shown in Table 9.

TABLE 9: EXPENDITURE DETAILS

Rs. in lakh

S. No.	Head of Account	BE for 2018-19	RE for 2018-19	Expenditure for 2018-19
1	For works & land (LA)- JW	38007.15	26946.28	24036.92
2	For works - KJ	5817.71	2033.28	1277.82
3	For works & land (LA) - JH	3393.15	905.90	640.00
	Sub Total	47218.01	29885.46	25954.74
4	For Bridges - JD	872.34	302.05	299.46
5	JT	4627.18	2618.40	1520.85
6	JJ	900.00	1000.00	180.13
	Sub Total	6399.52	3920.45	2000.44
	Grand Total	53617.53	33805.91	27955.18

During 2018-19, spill-over works viz., 7 grade separators, 8 ROB / RUBs, 5 river bridges, 3 road works and 1 new road work were taken-up. Of this, 1 river bridge had been completed at a cost of Rs.17 Crore.

2.2.1 Grade Separators

During 2018-19, 7 spill-over works were taken-up. The total cost of the works is Rs.593.65 Crore. Out of this, 6 works are in progress. Land Acquisition is under progress for the remaining work. The details are given below:

2.2.1.1 In progress

1. Grade Separator at Pallavaram for Rs.82.66 Crore.
2. Grade Separator at Velachery Vijayanagaram junction for Rs.108 Crore.
3. Grade Separator at Kaliamman Koil road junction for Rs.93.50 Crore.
4. Grade Separator at Medavakkam for Rs.146.41 Crore.

5. Grade Separator at Kilkattalai for Rs.64 Crore.
6. Grade Separator at Kolathur Retteri (RHS) for Rs.41.08 Crore.

2.2.1.2 Land Acquisition and DPR

1. Grade Separator at Thiruvanmiyur Junction for Rs.58 Crore.

DPR is being prepared for the following 15 Grade Separator proposals.

1. At the junction of ECR and Lattice Bridge road at Thiruvanmiyur.
2. At intersection of Southern Sector of Inner Ring Road with Mount-Medavakkam road at Madipakkam.
3. In EVR salai at the inter section of Nelson Manickam road and Anna Nagar 3rd Avenue road (Section -IV) second level.
4. At the intersection of Mount – Poonamallee – Avadi road and Poonamallee – Kundrathur road with Chennai – Chittur - Bengaluru road at Poonamallee – Kattupakkam.
5. In EVR salai at the intersection from Raja Muthiah Salai to Pulla Avenue.
6. Forming six lane of ECR from km 11/8-23/2 Thiruvanmiyur to Akkarai including Grade Separator.
7. Four lane Grade Separator at km 76/8 of NH-205 (Chennai-Thiruttani - Renigunta Road) & junction of km 6/4 of Vanagaram- Ambattur Road.
8. Grade Separator at km 68/4 of NH-205 (Chennai - Thiruttani - Renigunta Road) and SH-55 (Mount-Poonamalle - Avadi Road) at km 20/8.
9. Grade Separator at the Junction of km 4/2 of Madhavaram – Redhills road and km 19/1 of Inner Ring Road.
10. Multi-level Grade separator on Mount – Poonamallee – Avadi road from MIOT Hospital to Mugalivakkam (via) Ramapuram, L&T and DLF.

11. Grade Separator at km 17/2 of Marmalong Bridge – Irumbuliyur Road at the intersection of Marmalong Bridge – Irumbuliyur road and Madambakkam road.
12. Grade Separator at km 80/7 in Chennai – Thiruttani - Renigunta Road (NH205) at Korattur.
13. Grade Separator at the intersection of Pallavaram - Kundrathur Road and Chennai – Kodambakkam - Sriperumbudur Road at Kundrathur.
14. Extension of Vadapalani Grade Separator upto Ashok Pillar Junction.
15. Grade Separator at km 6/5 of Marmalong Bridge - Irumbuliyur road near Kaiveli, Madipakkam.

2.2.2 ROBs / RUBs within Chennai Metro Area (CMA)

During 2018-19, 8 spill-over works were taken-up. The total cost of works is Rs.366.87 Crore. Out of this, 1 work is in progress. Remaining works are in various pre-construction stages. The details are given below:

2.2.2.1 In progress

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

2.2.2.2 To be taken-up

1. ROB in lieu of LC No.32 near Perungulathur Railway station at a cost of Rs.206.83 Crore

2.2.2.3 LA & DPR

1. ROB in lieu of LC No.14 near Veppampattu at a cost of Rs.29.50 Crore (LA)
2. RUB in lieu of LC No.4 near Thiruvotriyur - Ennore Railway stations at a cost of Rs.28 Crore (DPR and LA)
3. RUB in lieu of LC No.6 near Thiruvotriyur- Wimco Nagar Railway stations at a cost of Rs.25.50 Crore (DPR)

4. ROB in lieu of LC No.16 near Nanthiyambakkam Minjur Railway Station at a cost of Rs.28.32 Crore (DPR and LA)
5. RUB in lieu of LC No.22 near Tirusulam Railway station at a cost of Rs.14 Crore (DPR)
6. LUS in lieu of LC No.27 near Chrompet Railway station at Radha Nagar at a cost of Rs.14.75 Crore (DPR and LA)

2.2.3 Widening of ROBs within CMA

As the width of the existing ROBs in the following locations are insufficient for the present-day traffic requirements, it has been proposed to widen:

- Widening of ROB at km 20/8 of Mount - Poonamallee - Avadi road at a cost of Rs.12 Crore – Proposal is under consideration for inclusion under Railway Works Programme 2019-20 on cost sharing basis.
- DPR for Widening of ROB to dual four lane at km 12/2 - 13/2 of Inner Ring Road is under preparation. On completion, the work will be taken-up.

2.2.4 River Bridges

During 2018-19, 5 spill-over works were taken-up. The total cost of the works is Rs.119.04 Crore. Out of this, 1 bridge work was completed.

One work is in progress and Land Acquisition is in advanced stage for 2 river bridges. For the remaining work, DPR is in progress. The stages are listed below:

2.2.4.1 Completed

1. Widening of the bridge at km 2/6 of Mount –Poonamallee – Avadi road across Adyar River near Ramapuram at a cost of Rs.17 Crore.

2.2.4.2 In progress

1. Construction of high level bridge across Buckingham Canal at km 0/6 of Thiruvottriyur – Ponneri – Panchetty Road at a cost of Rs.58.64 Crore.

2.2.4.3 Land Acquisition

1. Construction of high level bridge across Coovum River at km 14/4 of M.P.A road at Paruthipattu for Rs.7.40 Crore.
2. Construction of high level bridge across Coovum River at Nolambur road for Rs.36 Crore.

2.2.4.4 DPR

1. Construction of high level bridge across Coovum River at Padikuppam.

2.2.5 Formation of New Link / Widening of Road Works

To ease traffic congestion, improvements to vital missing links are essential.

During 2018-19, spill-over works of LA for widening / formation of 2 road works and formation of 1 link road were taken-up. The total cost of the works is Rs.634.36 Crore and the works are in progress. 1 new work costing Rs.36.69 Crore has been taken-up and the work has been commenced. The details are given below:

2.2.5.1 Land Acquisition

1. Formation of Tambaram Eastern Bypass road at km 0/0-8/4 (LA only) for Rs.75.50 Crore.
2. Six laning of ECR from Thiruvanmiyur to Akkarai km 11/8-23/2 (LA only) for Rs.354.66 Crore.
3. Formation of link road and construction of bridge across Buckingham canal connecting Rajiv Gandhi salai and ECR at Neelankarai for Rs.204.20 Crore.

2.2.5.2 In progress

1. Formation of Tambaram Eastern Bypass at km 5/450 – 8/080 (LA completed stretch) for Rs.36.69 Crore.

2.2.6 Pedestrian Infrastructure Facilities

Two spill-over Pedestrian subway works at the following locations had been taken-up for DPR preparation in CMA.

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

2.2.7 Skywalk

The FOB and Skywalk with escalator connecting Tambaram railway station and Bus Stand have been sanctioned for Rs.19.75 Crore and the work is in progress.

Further, DPR is being prepared for providing Skywalk, Escalator and other accessories connecting Eastern and Western parts of Tambaram town with the existing Bus stand, Tambaram Railway station including improvements to existing Bus stand.

2.2.8 Works Sanctioned During 2018-19

The Preliminary feasibility study is being carried-out to decongest the traffic at the following locations.

1. Construction of ROB at km 75/6 of Chennai - Thiruttani – Renigunta Road (SHU148) in lieu of Existing two lane ROB.
2. Construction of Grade Separator at the junction of Sardar Patel Road and Rajiv Gandhi Salai at Madhyakailash.
3. Construction of Foot Over Bridge with Escalator at Km 9/300 in Inner Ring Road near Kendriya Vidhyalaya School.

2.3 CONSTRUCTION OF ROB / RUBs AT RAILWAY LEVEL CROSSINGS UNDER RWP

The construction of Road Over Bridges (ROBs) / Road under Bridges (RUBs) in lieu of Level crossings having more than 1 lakh TVU are

taken-up under Railway Works Programme on 50:50 cost-sharing basis with Railways.

Out of 102 works under RWP, 54 works were sanctioned for execution for Rs.1758.29 Crore and remaining 48 works were sanctioned for DPR preparation/Preliminary works for Rs.280.31 Crore.

Out of 54 works, 6 ROBs have been completed at Rs.247.03 Crore and 32 works are in progress for a value of Rs.1086.94 Crore. The remaining 16 works are in various pre-construction stages for Rs.424.32 Crore.

Out of 48 works, 21 ROB / RUBs are sanctioned for DPR preparation / Land Acquisition/ Shifting of Utilities at a cost of Rs.271.98 Crore. The preliminary works are under progress. For 27 ROB / RUBs, DPR works are in progress at a cost of Rs.8.33 Crore.

A sum of Rs.279.20 Crore has been spent under this scheme during 2018-19.

2.4 NABARD LOAN ASSISTANCE SCHEMES

2.4.1 Improvements to Major District Roads / Other District Roads Under NABARD Loan Assistance

Under this scheme, spill-over works of 2 roads to a length of 5.80 km at a cost of Rs.1.89 Crore were taken-up for execution and completed.

2.4.2 Construction of Bridges in Government Roads

In this scheme, spill-over work of one bridge namely "Reconstruction of high level bridge at km 0/8 of Sadras – Chengalpattu – Kanchipuram – Arakkonam - Thiruthani road" at a cost of Rs.0.94 Crore was taken-up and completed.

2.4.3 Construction of Bridges in Government and Panchayat Union Roads

Under this scheme, 192 spill-over bridge works and new works at 80 locations have been sanctioned during 2018-19 at a cost of Rs.710.44 Crore were taken-up for execution and are in various stages.

Of the above, 50 bridges were completed with an expenditure of Rs.115.11 Crore.

2.4.4 RURAL ROADS SCHEME

Under this scheme, spill-over work of one bridge between Tharapakkam and Anakaputhur at a cost of Rs.1.17 Crore was taken-up for execution. For this work, land belonging to Indian Air Force (IAF) is required for which land alienation process is under progress. On completion of alienation process, the work will be completed.

2.5 STATE FUNDED SCHEME

2.5.1 Upgradation of Panchayat Union Roads / Panchayat Roads to ODR Standards

From 2017-18 onwards, upgradation of Panchayat Union Roads / Panchayat Roads to Other District Roads (ODR) standard under State Fund has been taken-up as a special scheme.

Under this scheme, spill-over of 1418 km of 458 Panchayat Union Roads / Panchayat Roads at a spill-over cost of Rs.508.33 Crore and newly sanctioned 1539 km of 516 Panchayat Union Roads / Panchayat Roads at a cost of Rs.882.62 Crore are taken-up for upgradation. Out of which, 422 Roads to a length of 1322.39 km have been completed with an expenditure of Rs.437 Crore.

2.6 CONSTRUCTION OF ROB / RUBs

21 Road Over Bridges / Road Under Bridges at a spill-over cost of Rs.261.65 Crore in lieu of existing level crossings were taken-up for execution under Railway Works Programme. Of this, 4 Road Over Bridges, i.e. 1 at **LC 304 – Thanjavur at Rs.52.12 Crore**, 1 at **LC 2 – Venkatesapuram, Villupuram** at Rs.34.75 Crore, 1 at **LC 22 – Needamangalam, Thiruvarur at Rs.27.17 Crore** & 1 at **LC 124 – Sastri Nagar, Erode at Rs.10.10 Crore** were completed.

2.7 BYPASSES

Forming of bypass is taken-up to relieve congestion in cities and towns. Further, bypasses help in reducing the travelling time and vehicle operating cost. Land acquisition and preparation of DPR for forming of bypasses are taken-up in first phase to avoid time delay. At present, road work for 4 bypasses are in progress. The details of bypasses from 2011-12 to 2018-19 is tabulated.

TABLE 10: DETAILS OF BYPASSES

Status	No. of works
Completed	24
Road work in progress	4
LA work in progress	42
DPR stage	24
TOTAL	94

2.8 IMPROVEMENTS TO RIDING QUALITY

New works of Improving the Riding Quality to 3826 km length of roads were sanctioned at a cost of Rs.850 Crore during 2018-19.

Of this, road works to a length of 2660 km were completed at an expenditure of Rs.587.79 Crore and balance works are in progress.

2.9 TSUNAMI REHABILITATION PROGRAMME

During 2018-19, spill-over works of 5 bridges were taken-up and 4 bridge works were in progress. The MoEF clearance for one work in Pasiyavaram Reserve Forest area in Tiruvallur district has been obtained and work has to be commenced.

2.10 WORKS IN CHENNAI EXTENDED CORPORATION AREA

As per the announcement made during 2014-15, 14 works to a tune of Rs.250 Crore had been sanctioned in Phase-I and during 2015-16, 22 works at a cost of Rs.150 Crore had been sanctioned in Phase-II. Out

of the 36 works sanctioned, 35 works have been completed and 1 work is in progress. An expenditure of Rs.27.32 Crore has been incurred during 2018-19.

2.11 PERFORMANCE BASED MAINTENANCE CONTRACT (PBMC)

Performance based Maintenance Contract (PBMC) has been taken-up at Divisional level in SH and MDR for a 5 year contract period for effective preservation of road assets. PBMC scheme includes Initial Rectification, Periodical Renewal, Minor Improvements, Ordinary Maintenance and Emergency works.

This scheme was introduced in the State during 2012-13 in the Pollachi division, at a cost of Rs.233.93 Crore. The fifth year maintenance works have been completed in February 2019. Replicating the best practices, PBMC has been extended to Krishnagiri, Ramanathapuram, Thiruvallur and Virudhunagar Divisions. Total length of 1564 km of SH and 1382 km of MDR are being maintained under PBMC.

2.12 FORMATION OF ROAD GRIDS ALONG CHENNAI OUTER RING ROAD

During 2012-13, as announced under 110 rule the DPR for forming road grids would be taken-up and accordingly, Government have sanctioned Rs.5.22 Crore for the work. The preparation of Detailed Project Report for 15 grids had been completed. Now, the preparation of Land Plan Schedule (LPS) is in progress.

2.13 TAMIL NADU INVESTMENT PROMOTION PROGRAMME - PHASE II (TNIPP-II)

Four-laning of Puduvoyal – Pulicat Road (6.20 km) was taken-up to facilitate cargo container traffic for the proposed Mahindra Industrial Park at km 2/0 of this road. The stretch from km 0/0 - 2/0 of the above was taken-up under CRIDP scheme 2017-18 and is completed. The work of widening from intermediate lane to four lane of Puduvoyal – Pulicat Road from km 2/0-6/2 has been taken-up under Tamil Nadu Investment

Promotion Programme - Phase II (TNIPP) scheme at a cost of Rs.45 Crore and LA works are in progress.

2.14 ROAD SAFETY MEASURES

To reduce loss of lives due to road accidents, 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. In total, road safety works to the tune of Rs.1652.19 Crore were taken-up as detailed in Table 11.

TABLE.11: ROAD SAFETY WORKS

Rs. in Crore

S. No.	Year	Details of Fund allocation		
		CRIDP	Road Safety Fund	Total
1	2014-15	250.00	200	450.00
2	2015-16	206.87	100	306.87
3	2016-17	203.07	100	303.07
4	2017-18	200.15	100	300.15
5	2018-19	292.10	-	292.10
		Total		1652.19

Under the Road Safety fund, from 2014-15 to 2017-18, out of 1746 road safety works, 1293 works were completed and the balance works are in progress.

2.15 PERMANENT FLOOD RESTORATION WORKS

Government have sanctioned Rs.514.05 Crore for construction of culverts, minor bridges, major bridges, box culvert, retaining wall, drain and equipping with pumps, excavators, to enhance handling of flood restoration works. Further Government have also sanctioned an amount of Rs.2.16 Crore for preparation of DPR for 21 bridges. All works are in progress.

2.16 STATE INFRASTRUCTURE AND AMENITIES DEVELOPMENT FUND

Government have sanctioned 15 works at a cost of Rs.84.18 Crore in Krishnagiri, Madurai, Perambalur, Sivagangai and Theni districts under State Infrastructure and Amenities Development Fund and the works are in progress.

2.17 IMPROVEMENTS OF WORKS IN CORPORATION LIMITS

To improve the infrastructure facilities in city road network, an announcement has been made during 2018-19 to prepare DPR in 6 Corporations namely Madurai, Dindigul, Thanjavur, Thoothukudi, Trichy and Coimbatore. The Government have sanctioned Rs.252.73 lakh for the above DPR works and the same is in progress.

2.18 DETAILS OF DPR WORKS

Government have sanctioned for preparation of DPR for the following works:

TABLE 12: LIST OF DPR WORKS

Rs. in lakh

S. No.	District	Name of work	Amount
1	Vellore	Construction of High Level Bridge connecting Kangeyanallur - Sathuvachari villages across Palar River.	25.00
2	Kallakurichi	Construction of High Level Bridge across Thenpennaiyar river in lieu of existing causeway at km 72/0-72/6 of Cuddalore -Chittoor Road (SH9).	25.00
3	Ariyalur and Thanjavur	Construction of High Level Bridge across Coleroon river including construction of Bridge across Manniyaru river connecting Mettutheru in Thanjavur District and Melaramanallur in Ariyalur District including formation of link road.	37.50

S. No.	District	Name of work	Amount
4	Coimbatore	Preparation of Detailed Project Report for the work of Extension of Flyover along Athupalam and Ukkadam upto Oppanakara street in Coimbatore city.	12.00
Total			99.50

2.19 MAINTENANCE WORKS

Maintenance of roads in time play a vital role in its longevity. Renewal for 3284 km length of roads have been completed at an expenditure of Rs.976.26 Crore during the year 2018-19.

2.20 NATIONAL HIGHWAYS WORKS

6634 km length of National Highways are within the State's boundary. Of this,1900 km length of roads are improved / maintained by National Highways wing of the State utilizing the Government of India funds. Remaining 4734 km length of roads are being maintained by National Highway Authority of India (NHAI).

2.20.1 NATIONAL HIGHWAYS ORIGINAL WORKS

Under Annual Plan 2018-19, MoRT&H have sanctioned 24 works, at a cost of Rs.1294.71 Crore, for 142.33 km length. In addition, 70 spill-over road works for a length of 738.67 km have also been taken-up for execution for Rs.1557 Crore. Out of the above, 25 road works (292.08 km) and 14 bridge works have been completed during 2018-19. The expenditure is Rs.883.96 Crore.

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

Under this scheme, 5 road works for a length of 41.55 km, amounting to Rs.25.76 Crore have been taken-up for implementation. Out of 5 works, 2 road works have been completed for a length of 22.5 km at an estimated cost of Rs.18.51 Crore. Balance 3 road works are in progress.

2.20.3 SCHEMES SPONSORED BY GOVERNMENT OF INDIA

2.20.3.1 REVAMPED CENTRAL ROAD FUND SCHEME

As on 01.04.2018, 179 works are taken-up as spill-over to a length of 1289.96 km, at a total cost of Rs.1138.09 Crore. Of them, 87 works for a length of 618.84 km have been completed at an expenditure of Rs.599.41 Crore.

During year 2018-19, 71 works have been sanctioned by MoRT&H, to a length of 619.52 km at an estimate cost of Rs.1996.40 Crore. The works are in progress.

A budget provision of Rs.800 Crore has been made for the financial year 2019-20 by the State Government under this scheme.

2.20.3.2 INTER STATE CONNECTIVITY SCHEME

During the year 2018-19, 6 spill-over road works, of 103.20 km length at Rs.130.47 Crore were taken-up. Of this, 5 works for a length of 62.00 km had been completed for Rs.62.88 Crore and the remaining work is in progress.

2.20.3.3 Pradhan Mantri Gram Sadak Yojana (PMGSY)

PMGSY has been launched by the GoI for providing connectivity to unconnected habitations to alleviate poverty. The requisite funds for the scheme is derived from the accruals under CRF Cess. The GoI endeavors high quality standard roads with the State's commitment levels to maintain rural road network. The works have been taken-up in a phased manner under this scheme. The works of Phase-I & Phase -II of PMGSY-I are completed in all respects. Now, Phase III, IV, and V of PMGSY-I and PMGSY II are in maintenance stage.

2.20.4 OTHER SCHEMES

2.20.4.1 Setu Bharatam - Construction of ROB / RUBs in lieu of Existing Level Crossings on NHs

Under this scheme, MoRT&H has engaged consultant for the preparation of Detailed Project Report for the construction of 8 ROB/RUB

in lieu of existing level crossings on National Highways. Of this, 6 DPRs are nearing completion and 2 works belong to NHAI.

2.20.4.2 Bus Ports

Construction of Bus Ports with all modern amenities for improved passenger facility, integrating multi-modes of transport, have been proposed at Salem, Coimbatore as a sub-component under National Corridors Efficiency Program Component of Bharatmala Pariyojana. The NHIDCL of MORT&H is undertaking the DPR preparation.

2.20.4.3 Works Entrusted From NHAI

- a. For improvement of Perambalur - Athoor road (NH-136) of length 55.00 km, action is being taken for updation of DPR.
- b. For improvement of Thoppur - Mettur - Bhavani - Erode road (NH 544 H) of length 135.00 km, action is being taken for updation of DPR.
- c. The work for widening between Irumbuliyur to Vandalur (2.30 km) to eight-lane standards, at a cost of Rs.20.77 Crore and widening from Vandalur – Guduvancherry (5.30 km) at a cost of Rs.44.48 Crore are approved by NHAI and the work is in progress.

2.21 STATE FUNDED SCHEMES

2.21.1 RIVER BRIDGE WORKS

2.21.1.1 Completed River Bridge works

1. 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 for Rs.22.57 Crore
2. Construction of High Level Bridge at km 4/8 of Pappireddipatti – Mallapuram Road (M328) across Vaniyar river in Dharmapuri district for Rs.7.25 Crore

2.21.1.2 Works in Progress

1. Construction of High Level Bridge across the River Coleroon at Kallanai connecting Thiruvanaikoil Road and Grant Anaicut Road in Thanjavur District for Rs.61.02 Crore.
2. Construction of High Level Bridge across the river Pambar with approaches near Chithirambur in Pudukottai district Rs.18.82 Crore.

2.21.2 FOOT OVER BRIDGES WITH ESCALATOR (FOBs)

Government have accorded Administrative Sanction for the following 2 Foot Over Bridges with Escalators for Rs.18.81 Crore. Design is under preparation for these 2 FOBs.

1. FOB work near Railway Station at Coimbatore City,
2. FOB work near Nanjundapuram junction at Coimbatore.

2.22 DETAILED PROJECT REPORT PREPARATION

During 2018-19, Government have accorded sanction for Rs.6.32 Crore for the preparation of Detailed Project Report for the construction of 20 works in 15 districts.

2.23 LA WORK SANCTIONED

During 2018-19, Government have accorded sanction for Rs.36.83 Crore for carrying out Land Acquisition for 6 works in 4 districts. For these works, Land Acquisition process is under progress.

2.24 CHENNAI OUTER RING ROAD

2.24.1 Chennai Outer Ring Road Phase - I

The Phase-I of the CORR, under DBFOT model connecting Vandalur on NH-45 and Nemilichery on NH-205 via Nazarathpet on NH-4 for a length of 29.65 Km is undertaken at a cost of Rs.1081.40 Crore. With almost completed and the stretch from Mannivakkam to Nemilichery had been put to public use. Certain portions of the project stretch are under prolonged litigation, which would be settled soon and project completed.

2.24.2 Chennai Outer Ring Road Phase - II

The Phase-II of the CORR, six laning from Nemilicheri (NH – 205) to Minjur (crossing NH-5), for a length of 30.50 Km, under DBFOT at a cost of Rs.1075 Crore, has been almost completed except for a meagre length of 0.50 Km which is under litigation. The same would be settled early, works would be completed and put to public use.

2.25 CHENNAI PERIPHERAL RING ROAD SECTION-I

Chennai Peripheral Ring Road, from Mamallapuram to Ennore, has five sections with Section-I connecting NH-5 at Thatchur, with Ennore Port plus one spur link road to Chennai Outer Ring Road at Minjur, is for a total length of 24.85 km, is undertaken by TNRDC.

The Green Field project sanctioned at a cost of Rs.2673.42 Crore, is aimed at providing the vital connectivity of the heavy industrial corridor and the Ennore port traffic with the CPRR, leading to all the intervening NHs.

As a preliminary step towards the project preparation, the Government have sanctioned Rs.951 Crore for LA. The LA works is in progress for 15 villages in Ponneri Taluk, Thiruvallur District. The project is funded by the Japan International Cooperation Agency (JICA). The procurement of Project Management Consultancy is in progress. The work is to be commenced by 2020 and expected to be completed by 2023.

2.26 CONSTRUCTION OF A FOUR LANE HIGH LEVEL BRIDGE AT ILAYANARKUPPAM IN ECR NEAR KALPAKKAM

The construction of a four lane high level bridge at km 69/300 in ECR road at Ilayanarkuppam, a work under the announcement during 2017-18, is taken-up at a cost of Rs.23.78 Crore. Work is in progress.

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

TNRDC has taken-up the widening of the existing North Chennai Thermal Power Station Road and the road leading to Kamarajar Port Main Gate from 2 lane to 4 lane for 7.2 km length on deposit terms. The Rigid pavement section is at a cost of Rs.195 Crore.

The work of four laning 2.8 km long Kamarajar Port Road is under progress. The North Chennai Thermal Power Station Road is to be implemented during this year.

2.28 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 is in progress.

2.29 RAJIV GANDHI SALAI (IT CORRIDOR)

2.29.1 Phase I

The Rajiv Gandhi Salai was developed as a dual three lane road from Chennai Adyar Madhya Kailash to Siruseri for 20.10 km, IT Expressway, Phase-I including the 2.15 km link road between Sholinganallur and ECR, is under toll maintenance.

2.29.2 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 planned by the Government of Tamil Nadu.

The Government have sanctioned Rs.465.13 Crore for acquisition of required land to an extent of 88.62 hectares in 13 villages from Siruseri to Poonjeri for a width of 60m Right of way for implementing the six lane

proposals. Presently, acquisition have been completed in 9 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 and the estimated cost is Rs.573.99 Crore. For first stage, Administrative Sanction had been accorded for Rs.243.70 Crore for forming two bypasses at Kelambakkam (4.675 km) & Tiruporur (7.45 km) alone in the above total 25 km stretch, under TNIPP-II and work is under progress.

2.30 MULTI LEVEL CAR PARKING (MLCP) AT SIRUSERI

The Multi Level Car Parking (MLCP) at Siruseri under PPP mode, with nine floors for car parking and a commercial complex is planned under DBFOT at a cost of Rs.200 Crore. DFR has been prepared.

Since the alignment proposals of CMRL phase-II foul within the MLCP portion, the DFR is now being modified to incorporate the above changes. The same would be finalized soon and taken-up for implementation.

2.31 ELEVATED ROAD

Elevated Corridor from Taramani to Siruseri under Phase-I and from Siruseri to Mamallapuram under Phase-II, for a total length of 45 km had been announced with an allocation of Rs.5 Crore for DPR.

DPR has been completed for Phase-I. The DPR is now being revised to incorporate proposals of CMRL Phase-II. The project is to be executed with funds under JICA assistance.

Preliminary Project Report (PPR) have been sent to Ministry of Road Transport and Highways (MoRTH), Government of India (GoI) for the inclusion in the External fund works plan.

2.32 ORAGADAM INDUSTRIAL CORRIDOR PROJECT

It was decided to improve the road infrastructure facilities in Oragadam Industrial Park, Kanchipuram District and accordingly the Oragadam Industrial corridor project was sanctioned during 2005-06. The details are as follows:

TABLE 13: DIFFERENT PHASES OF THE PROJECT

Rs. in lakh

Sl. No.	Phase	Year of Sanction	Sanctioned Amount	R.A.S. Amount	Remarks
1	I	2005-06	30000	61282	98% of works completed.
2	II	2011-12	8665	10866	95% of works completed.
3	III	2015-16	11500	-	98% of works completed – LA involved.
4	IV	2016-17	18981	-	90% of works completed – LA involved.
5	V	2017-18	18009	-	Work in progress

2.32.1 PHASE-I

The work of Widening and Improvements to Singaperumal koil – Sriperumbudur 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 2 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.255.10 Crore for Land acquisition.

2.32.2 PHASE-II

The work of Improvements from four laning to six laning of Singaperumalkoil – Sriperumbudur 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, will be taken-up on acquiring land.

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

2.32.3 PHASE-III

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

Out of 12.00 km, work in 11.70 km had been completed. Work is in progress in the remaining portion.

An expenditure of Rs.108 Crore had been incurred so far.

2.32.4 PHASE-IV

The work of Improvements from four laning to six laning of Vandalur to Wallajabad road km 30/4 – 47/0 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 work have been completed. In Padappai Village, LA award has been pronounced and the balance work is in progress.

An expenditure of Rs.140 Crore has been incurred so far.

2.32.5 PHASE-V

The work of Improvements from Four laning to Six laning of Vandalur – Wallajabad Road km 47/0 – 63/8 for a total length of 16.80 km has been taken-up for implementation during 2017-18 at a cost of Rs.180.09 Crore. The work is in progress.

An expenditure of Rs.48 Crore has been incurred so far.

2.33 FOUR LANING OF MADURAI RINGROAD

The work of Widening the Madurai Ring Road from double lane to four lane from Km 0/0 – 27/2 had been taken up for implementation during 2015-16 under BOT Toll basis at a cost of Rs.213.69 Crore with the Viable Gap Funding (VGF) from the State at Rs.80 Crore. Additional two lane Bridge is being constructed in High Level bridge across Vaigai River and in two ROBs (near Viraganur and Kappalur).

Agreement for this work has been entered into for a Concession period of 20 years including the Construction Period of 2 Years. Now, 90% of work has been completed. The work will be completed soon.

Out of VGF of Rs.80 Crore, Rs.68.65 Crore have been released.

2.34 PERMANENT FLOOD RESTORATION UNDER CRIDP 2018 –19.

The work of Construction of Minor Bridge at km 33/6 of Vandalur – Wallajabad road (SH-48) has been taken-up for implementation during 2018-19 at a cost of Rs.4.80 Crore. The work is in progress.

An expenditure of Rs.1.08 Crore has been incurred so far.

2.35 DEPOSIT WORK

The work of Forming Northern Access Road to Daimler India Commercial Vehicle Plant at Oragadam (Branching at km 46/342 of Vandalur – Wallajabad Road – SH-48) has been taken-up for implementation during 2018-19 at a cost of Rs.7.50 Crore as deposit work from SIPCOT. The work is in progress.

An expenditure of Rs.1 Crore has been incurred so far.

2.36 PERFORMANCE

Works had been executed during 2018 – 19 for Rs.97.90 Crore. Balance works are in progress.

2.37 RESEARCH WORKS UNDER TANII SCHEME

Highways Research Station has taken-up the following research schemes, under Tamil Nadu Innovative Initiation (TANII 2015-16) funds, sanctioned during 2016-17 for Rs.283.70 lakh.

1. Accident study for vulnerable road users.
2. Study on performance of Bituminous pavement laid over stabilized sub-base

An expenditure of Rs.260.71 lakh has been incurred so far. Both the above studies had been completed. The study on Bituminous pavement is under field observation for which an amount of Rs.11.00 lakh was sanctioned in 2018-19.

During the financial year of 2017 - 18, the following three works were sanctioned under TANII funds.

TABLE 14: DETAILS OF SCHEMES

Rs. in lakh

S. No.	Name of scheme	Funds sanctioned				Remarks
		2017-18	2018-19	2019-20	Total	
1.	Study on improving the sub-grade soil by adding quarry dust.	5	0	0	5	Work completed
2.	Study on the technology of long-lasting pavement including Construction of Circular Test Track for Model Study.	195	5	0	200	Work in progress
3.	Bridge instrumentation for Structural Health Monitoring System.	55	5	5	65	Work in progress
Total		255	10	5	270	

So far, expenditure of Rs.171.48 lakh has been made. Balance works are in progress.

For 2018-19 financial year, the research scheme, "Study on effect of Nano clay in Bituminous Mixes" was sanctioned for Rs.4.00 lakh and expenditure has been made and the work is in progress. The results of the studies on implementation at site would improve the performance and longevity of roads & bridges.

2.38 DESIGN WORKS COMPLETED

2.38.1 WORKS COMPLETED DURING 2018-19

Totally 86 works have been completed. This includes design of Road Over Bridges / Road Under Bridges / River Bridges / Grade Separators / revisions / modifications.

2.38.2 PROGRAMME FOR 2019-20

During the current year, 60 works are taken-up. This includes preparation of design, drawings and estimate for 22 Road Over Bridges / Road Under Bridges / Limited Use Subway, 27 River bridges. Proof-checking of DPR works prepared by consultants for 1 Grade Separator, 3 Road Over Bridges / Road Under Bridges and 4 River bridges, 2 flyovers, 1 Foot Over Bridge with escalators are also in progress.

In addition to the above, works to be received during the financial year 2019-20 are also to be taken-up.

2.39 TAMIL NADU ROAD SECTOR PROJECT (TNRSP)

The Government have formed Tamil Nadu Road Sector Project –II, for upgrading high traffic road corridors in the state. Loan and Project Agreement for 300 Million USD were entered to with the World Bank. The project covers road upgradation, maintenance, Institutional Capacity Enhancements and Road Safety (ICE &RS) measures.

2.39.1 UPGRADATION AND MAINTENANCE THROUGH (EPC) CONTRACTS

Under Engineering Procurement & Construction Contract (EPC), 427.66 km length of roads of two lane with paved shoulders in 10 packages have been signed for an amount of Rs.1704.91 Crore.

Out of 10 packages, 9 packages namely EPC-01, 02, 03, 05, 06,07,08, 09 and 10 have almost been completed. Regarding EPC 04 package, action is being taken to complete the balance works.

2.39.2 OUTPUT AND PERFORMANCE BASED ROAD CONTRACTS (OPRC)

Maintenance of 597 Km of Core Road Network (CRN) upgraded under TNRSP-I viz Arcot- Tiruvarur & Nagapattinam – Thoothukudi stretches for a period of five years have been taken-up at a cost of Rs.220 Crore. Three year maintenance works have been completed at a cost of Rs.170.062 Crore and fourth year maintenance is in progress.

2.39.3 UPGRADATION AND MAINTENANCE THROUGH PUBLIC PRIVATE PARTNERSHIP (PPP)

Widening of roads in core Road Network to four lane standards are taken-up under PPP modified annuity mode. The PPP 02 project for a length of 70.20 km is in progress. Procurement for PPP-01 project for a length of 30.60 km and for PPP 03 project for a length of 45.64 km will be initiated shortly.

2.39.4 CONSULTANCY SERVICES

Three consultancy services have been engaged to supervise the EPC 01 to EPC 10 contract packages and one consultant has been engaged to monitor the OPRC 01 & OPRC 02 Contracts. LA Consultant for Land Acquisition and also a monitoring consultant for Rehabilitation and Resettlement have been engaged for EPC and PPP package works. 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. Out of three PPP works, an Independent Engineer has been appointed to supervise the PPP 02 (SH 37) works. Procurement of Independent Engineer for the other two PPP works is under process.

2.39.5 PROPOSED DETAILED PROJECT REPORT CONSULTANCY SERVICES

The Tamil Nadu Infrastructure Development Board (TNIDB) has now allotted an amount of Rs.132.76 Crore for preparation of Detailed Project Report (DPR) for a length of 3319 km of roads vested with the Highways Department and falling within the influence zone of Chennai Kanyakumari Industrial Corridor (CKIC) and also falling outside the influence zone by engaging consultants and the work has been entrusted to TNRSP II. The RFP for the preparation of Detailed Project reports of roads to a length of 1181.635 km in 5 packages have been issued to the TNIDB empanelled consultants during March 2019.

2.39.6 INSTITUTIONALCAPACITY ENHANCEMENT

To meet the challenges of ever growing Highway Sector, following works are taken-up under this Project and being implemented through ICERS Cell.

- To understand the perception of the road user, road user satisfaction survey has been taken-up and conducted in Project roads and in other 4 non-project roads.
- 250 Engineers and officers from other stakeholder department have been trained in various topics through Anna Institute of Management.
- Consultant has been appointed to prepare amendment to Tamil Nadu Highways Act,2001 and draft amendment proposal is in advanced stage.
- Consultant has been appointed to update the Highways manuals and to suggest improvements in day to day processes of the department. Service commenced and draft updated manuals are being prepared by the Consultant.
- Consultant has been appointed to assess the training need of the department and device systematic Training plan, Manuals, training policy and to submit plan for Training Centre. Draft reports are being submitted by the Consultant.
- Consultant has been appointed to study the existing IT system and to suggest improvements to the IT system. The study of existing system is completed and the draft reports of proposed IT systems are being prepared by the Consultant.

2.39.7 ROAD SAFETY

To improve the safety of road user, following works are taken-up under this Project and being implemented through the ICERS Cell.

- Road Safety Management Consultant has been appointed to prepare Road Safety Policy and to support Road Safety Management Cell in implementing various road safety activities. Road Safety Audit has been taken-up and completed for

1400 km in Kancheepuram and Tiruvannamalai Districts. i-RAP survey is being conducted for 500 km.

- Procurement and installation of Automatic speed enforcement system in East Coast Road has been taken-up and procurement is at advanced stage.
- Procurement of Trauma Care centre at Kancheepuram Head Quarters hospital has been taken-up and procurement is at advanced stage.
- Creating road safety awareness among school children in Kancheepuram District has been taken-up and procurement of consultant is at advanced stage.
- Training for 19 senior officers and staff of various stakeholders departments through IRTE, New Delhi, has been taken-up and completed.

2.39.8 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 and so far expenditure of Rs.335.162 Crore have been incurred towards LA and R&R.

II. MINOR PORTS WING

3. TAMIL NADU MARITIME BOARD

Tamil Nadu has a coast line of about 1076 km. Along this coastline, there are 3 Major Ports, namely, Ennore, Chennai and Tuticorin notified under the Major Port Trust Act, 1963 and 18 Non-Major (Minor) Ports notified under the Indian Ports Act 1908.

Cargo transport is carried-out at Cuddalore, Nagapattinam Ports. At Pamban Port small ships are piloted through channel and ferry services are carried-out at Rameswaram and Kanniyakumari Ports.

3.1 COMMODITIES HANDLED IN MINOR PORTS

Table 15: Commodities Handled in Minor Ports

In Metric Tonnes						
S.No.	Name of the Port	Shipped/ Landed	No.of Ships	Commodity	Quantity of cargo	Total
1.	Ennore Minor Port	Landed	7	Liquid Ammonia	48,000	48,000
2.	Kattupalli Port	Landed	12	Steel / Iron	83,173	2,62,889
			2	Machineries	1,092	
			1	Electronic spares	439	
			5	Diesel	949	
			2	Gypsum	1,09,430	
			-	Lime stone	12,000	
			1	Sand	55,806	
		Shipped	7	Machineries	17,613	32,415
			2	Granite	14,330	
			1	Steel	455	
1	HSD (Diesel)		17			
3.	Cuddalore Port	Landed	37	Vinyl Chloride Monomer	2,80,540	2,80,554
			-	Miscellaneous	2	
			-	Machineries	12	
		Shipped	-	Petroleum Products	223	2,224
			-	Miscellaneous	1,951	
-	Machineries		50			
4.	Nagapattinam Port	Landed	3	Crude Palm Oil	25,400	43,093
			6	Refined Palm Oil	17,693	

S.No.	Name of the Port	Shipped/ Landed	No.of Ships	Commodity	Quantity of cargo	Total
4.	Nagapattinam Port	Shipped	15	Naphtha	1,31,483	2,91,303
			13	Diesel	1,58,351	
			-	Miscellaneous	1,469	
5.	Thirukkadaiyur Port	Landed	-	Natural Gas	377	2,416
			-	Crude Oil	2,039	
Total		Landed	69		6,36,952	9,62,894
		Shipped	39		3,25,942	
Grand Total			115		9,62,894	9,62,894

Table 16: 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	6	Heavy Motor Vehicle	198	198
		Shipped	-	Heavy Motor Vehicle	3	3
		Landed	343	20 Ft Loaded	78,189	1,39,601
				40 Ft Loaded	51,729	
				20 Ft Empty Container	1,842	
				40 Ft Empty Container	7,841	
		Shipped	343	20 Ft Loaded	93,181	2,72,191
				40 Ft Loaded	90,293	
				20 Ft Empty Container	60,191	
				40 Ft Empty Container	28,526	
Total		Landed	349		1,39,799	4,11,993
		Shipped			2,72,194	
Grand Total			349		4,11,993	4,11,993

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. 343 vessels were piloted at this port during the year 2018-19.

3.1.2 RAMESWARAM PORT

A passenger ferry service near Agnitheertham in Rameswaram is operated and 1,64,376 passengers were ferried during the year 2018-19.

3.1.3 KANYAKUMARI PORT

Ferry service is operated by Poompuhar Shipping Corporation Limited from sea-shore to Vivekananda Rock Memorial and Ayyan Thiruvalluvar Statue. Tamil Nadu Maritime Board is supervising the ferry service and collects establishment charges from the Corporation and 20,08,574 passengers were ferried during the year 2018-19.

3.1.4 CARGOTRAFFIC

In the year 2018-19, about 9,62,894 MT of cargo, 4,11,792 Nos. of containers and 201 vehicles have been handled through 464 vessels in the Minor Ports.

4. POOMPUHAR SHIPPING CORPORATION LIMITED

The Poompuhar Shipping Corporation Limited (PSC) was created during 1974 under Companies Act, 1956 to transport the coal required for the Tamil Nadu Generation and Distribution Corporation Ltd., (TANGEDCO) for the generation of electricity.

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, Dhamra and Vizhakatpattinam to discharge ports at Ennore, Karaikal 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 Paradip and Dhamra to Ennore for their three Units of 500 MW thermal power stations at Vallur, North Chennai, as per the Memorandum of Understanding.

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

Table 17: COAL MOVEMENT

Year	(In lakh Metric Tonnes)				Achievements
	Coal arrived at load ports	Coal moved by chartered vessels	Coal moved by own vessels	Total coal moved	
(1)	(2)	(3)	(4)	(5)	(6)
2016-17	171.86	135.02	34.35	169.37	98.55%
2017-18	190.00	167.62	21.23	188.85	99.39%
2018-19	210.06	197.84	7.18	205.02	97.60%

4.2 PHYSICAL AND FINANCIAL PERFORMANCE

4.2.1 PHYSICAL PERFORMANCE

Physical performance of own and chartered vessels for the period 2017-18 and 2018-19 are as follows:

Table 18: PHYSICAL PERFORMANCE

Description	2017-18	2018-19
OWN VESSELS		
No. of vessels	2	1
No. of voyages	48	17
Quantity of coal moved (in lakh MT)	21.23	7.18
Average quantity of coal moved per voyage (in MT)	44229	42225
CHARTERED VESSELS		
No. of Vessels	14	15
No. of voyages	262	310
Quantity of coal moved (in lakh MT)	167.62	197.84
Average quantity of coal moved per voyage (in MT)	63977	63818
Total quantity moved (in lakh MT)	188.85	205.02

4.2.2 FINANCIAL PERFORMANCE

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

TABLE 19: FINANCIAL PERFORMANCE

(Rs.in Crore)

Year	Turn Over	Profit
2016-17	427.15	2.95
2017-18	521.63	1.12
2018-19*	785.43*	4.00*

*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 20: PHYSICAL & FINANCIAL PERFORMANCE OF FERRY SERVICE

	2017-18	2018-19
No. of Ferry in service	3	3
No. of Passengers ferried (In lakh)	21.67	19.93
Fare collection (Rs. in lakh)	979.11	1124.40
Operational Profit (Rs. in lakh)	268.90	225.47*

*provisional

Edappadi K. Palaniswami
Chief Minister