



Highways and Minor Ports Department

**Policy Note
2020-21**

Demand No. 21

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Chief Minister

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Government of Tamil Nadu
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HIGHWAYS AND MINOR PORTS DEPARTMENT POLICY NOTE 2020-21

1. INTRODUCTION

Highways plays an important role in the socio economic development of the country which is the backbone of the strong Economy and dynamic societies. The road transport system also contributes to the growth of industries and also for the transportation of agricultural products which requires quick marketing. This in turn supports the economic growth of the country.

The construction of the quality, safe and reliable road network allows efficient movement of people and goods.

1.1 HIGHWAYS AND MINOR PORTS DEPARTMENT IN TAMIL NADU

Tamil Nadu is in the forefront of developing road infrastructure. Total length of surfaced roads in the State is 2.61 Lakh Km which includes roads in the Highways Department,

local bodies and other Departments. Out of which a length of 66039 Km are maintained by Highways Department in the following categories.

1.1.1 ROADS UNDER MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

1.1.1.1 *National Highways (NH)*

National Highways connects State capitals, Major ports, large industrial areas and tourist centres. Upgradation/improvements of the above roads are carried out by the funds allotted by Ministry of Road Transport and Highways, Government of India.

1.1.2 ROADS UNDER HIGHWAYS

1.1.2.1 *State Highways (SH)*

State Highways connects District head quarters, important towns, National Highways in the State and neighbouring States.

1.1.2.2 *Major District Roads (MDR)*

Major District Road connects production and marketing centres in the District with NH and SH.

1.1.2.3 Other District Roads (ODR)

Other District roads which includes the sugar cane roads of length 1676 km connects production centre and marketing centres with taluk headquarters.

The road network and lane configuration are shown in Table 1(a) and 1(b)

Table 1.a: Details of Road Network

Sl. No.	Classification of Road	Length (km)	Maintained by
1	National Highways (NH)	1900	State NH wing
		4734	NHAI
	NH Total	6634	
2	State Highways (SH)	11169	C&M Wing
3	Major District Roads (MDR)	11612	
4	Other District Roads (ODR)	36624	
Total length of roads other than NH		59405	
Grand Total		66039	

Table 1.b: Lane-wise Length Details

(Length in km)

Sl. No	Category	Single Lane (SL)	Intermediate Lane (IL)	Double Lane (DL)	Multi Lane	Total
1	NH	-	-	3514	3120	6634
2	SH	38	215	8570	2346	11169
3	MDR	321	7186	3869	236	11612
4	ODR	30490	4960	1103	71	36624
Total		30849	12361	17056	5773	66039

1.2 TAMIL NADU MARITIME BOARD (TNMB)

Tamil Nadu is the Southern-most State in the Union of India bounded by Bay of Bengal on the East, Indian Ocean on the South, Arabian Sea on the West and the States of Kerala and Karnataka on the West and the States of Karnataka and Andhra Pradesh on the North. It has a long coastline of 1076 km with 3 Major Ports and 17 declared Minor Ports. In order to stimulate minor port development and to encourage Public-Private participation, Tamil Nadu Maritime Board was formed on 18.03.1997 by an Act

(4/96) from the erstwhile Tamil Nadu Port Department.

1.3 POOMPUHAR SHIPPING CORPORATION (PSC)

The Poompuhar Shipping Corporation Limited (PSC) was created on 11.04.1974 under the companies Act, 1956 to transport the coal required for the Tamil Nadu Generation and Distribution Corporation Ltd., (TANGEDCO) for the generation of electricity. The coal required by TANGEDCO is transported from the load ports at Haldia, Paradip, Dhamra and Vishakapattinam to discharge ports at Ennore, Karaikal and Tuticorin.

The corporation is also transporting coal through chartered vessels from the year 2012 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 corporation is operating ferry service from the shore to Vivekananda Rock Memorial and the Ayyan Thiruvalluvar statue for the tourists. Presently, three ferries namely M.L.Guhan, M.L.Pothigai and M.L.Vivekananda with a seating capacity of 150 each are being operated since 11.08.1984.

2. POLICY OUTLINE

Road network plays a vital role for interlinking of various modes of transport viz., Railways, Airways and Water ways which contributes towards the holistic development of nation.

Connectivity provided by roads is perhaps the unique determinant of well being and the quality of people's life both in urban area/ Rural areas.

A planned road network ensures regulated, uninterrupted and safe traffic flow for the efficient movement of people and goods around the world.

In Tamil Nadu, Highways Department has an excellent road network of 66,039 km across the State serving the public. Effective road infrastructure facilities are achieved through the Improvements of Roads, bypasses, construction of Grade separators, River bridges, Road Over Bridges, Road Under Bridges, culverts, road safety works which are executed through the various schemes.

The schemes implemented by various wings are as detailed below:

2.1 STATE FUNDED SCHEMES

- Plan Schemes
- Non Plan Schemes

2.1.1 Plan Schemes

2.1.1.1 *Comprehensive Road Infrastructure Development Programme (CRIDP)*

This flagship scheme of Comprehensive Road Infrastructure Development Programme was introduced from the year 2005-06 to take up widening and improvements of roads in a large scale so that the infrastructure facilities are enhanced to heed the needs of the State .

The policy of widening all Intermediate Lane in State Highways to Double lane and all Single Lane in Major District Roads to Intermediate lane was announced during the Budget Demand 2011-12. Widening of 973 km length of State Highways at a cost of Rs.586.35 Crore and 3099 km length of Major District Roads at a cost of Rs.1612.42 Crore have been taken up.

As a result, 98 percentage of State Highways are in two Lane and multilane and 97 percentage of Major District Roads are in Intermediate Lane and two lane, multilane. Apart from widening and strengthening of roads sanctioned in the above scheme, protective works have also been sanctioned.

Considering the importance of the Road Safety aspects, works like widening of curves, geometrical improvements, junction improvements, center median and road signages are also sanctioned under CRIDP.

2.1.1.2 *Chennai Metropolitan Development Plan(CMDP)*

To identify core issues concerned with the traffic and transportation sector, Chennai Metropolitan Development Authority (CMDA) had envisaged a Comprehensive Traffic and Transportation Study (CTTS). This study was designed in a long term vision for the desirable development of transport infrastructure in Chennai Metropolitan Area (CMA). Major projects identified under CTTS are being implemented under the Chennai Metropolitan Development

Plan (CMDP) on priority basis since 2003-04 with State Budgetary allocation.

2.1.1.3 Rural Road Development

Under State Fund, Panchayat Union Roads / Panchayat Roads are being upgraded as Other District Roads.

2.1.1.4 Road Safety Programme

Road safety is an important criteria in the design of highway roads and the minor interventions taken in this aspect support the accident mitigation measures.

Growth of high speed vehicles demands improved road infrastructure. Due to the road accidents, every year India hits GDP (Gross Domestic Product) by 3%* and by considering the lives and heavy cost involved in the vehicle accidents, this department have implemented

* *Source UNESCAP (United National Economic and Social Commission for Asia and Pacific)*

various measures to increase the safety aspect to reduce the severity of such accidents.

Improvement works viz., realignment in curve portions, widening / reconstruction of narrow bridges / culverts, construction of protective wall, crash barriers in high embankment stretches, providing road furniture centre median are taken-up to increase the safety aspects of roads.

The United Nations formulated Sustainable Development Goals (SDG), which targeted to halve the number of deaths from road accidents by 2020, with a base year of 2015-16.

Road infrastructure, Education, Health care service, Traffic regulation and Enforcement play an important role in the savings of precious human lives. The Hon'ble Supreme Court of India constituted a three member Committee on Road Safety (CoRS), to monitor and review the action taken to reduce accidents. Several instructions and written guidelines have been issued by the committee. Holistic approach

adopted by all the Stake Holders has resulted in reduction of fatalities of 38%* from the year 2016. District Level meetings are regularly conducted and the accident data are analyzed for implementing remedial measures.

Under the Institutional Capacity Enhancement and Road safety component of TNRSP II, Road Safety Audit was conducted in 1487 km in Kancheepuram and Tiruvannamalai districts and Demo corridors for 95.6 km length have been identified for implementing interventions, monitoring and evaluation based on the accidents and fatalities. The Department will take continuous action based on the evaluation report.

2.1.1.5 Performance Based Maintenance Contract (PBMC)

In PBMC scheme, the responsibility and vitality of maintaining the roads in good

* Source: As per State Crime Record Bureau (SCRB)
road accident data (2019)

condition is instilled on the contractor and the contract management has become efficient. In this contract, conditions are made to ensure required service levels and performance indicators for payment of works.

The management of road network has become efficient since all State Highways and Major District Roads in a division are taken up under this scheme.

2.1.2 Non Plan schemes

2.1.2.1 *Maintenance works*

Maintenance of roads is essential for the uninterrupted traffic flow in all seasons. The existing road surface is subjected to wear and tear due to continuous flow of vehicles. The deterioration of the road is slowed down by proper maintenance. Funds for maintenance works are allotted under non plan head in the budget.

Under Special Repairs and Periodical Renewal, relaying of wearing course is carried out to maintain the road in good condition. Other repair works like attending patches, pot

hole repairs, trimming of berms, clearing vent ways of culverts/bridges before the onset of monsoon, planting avenue trees, painting of sign boards, Kilometre stone, cross drainage structures are also taken-up to maintain the road surface in good condition.

2.2 GOVERNMENT OF INDIA (GOI) FUNDED SCHEMES

2.2.1 Annual Plan

The original work of National Highways have been executed under this scheme by the funds approved by GOI every year. Works viz., improvements, widening, strengthening of roads and construction / reconstruction / rehabilitation of bridges in National Highways are being carried out in this scheme.

2.2.2 Central Road Fund (CRF)

The fund collected by imposing cess/tax on the consumption of petrol and high-speed diesel is allocated by the Ministry of Road Transport & Highways, GOI to the states for the development of road infrastructure

2.2.2.1 Revamped Central Road Fund Scheme (RCRF)

Improvements to State Roads, Major District Roads and Other District Roads are taken up under this scheme.

2.2.2.2 Inter State Connectivity (ISC)/ Economic Importance (EI) Scheme.

Roads which connect with adjacent States and economic scenario of the region are proposed under this scheme.

2.3 NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD) LOAN ASSISTANCE SCHEME

Under NABARD loan assistance scheme along with State contribution of 80:20, construction of River Bridges are being taken up.

2.4 RAILWAY WORKS PROGRAMME (RWP)

Due to increase in the vehicle population, the Level crossings are acting as a barrier while travelling on both Highways and Railways. In order to reduce the vulnerability of accidents, to

eliminate detention time and to avoid traffic congestion at the Level Crossings, the Road Over Bridges, Road Under Bridges (ROB, RUBs) are being constructed at level crossings where Train Vehicle Unit exceeds one Lakh.

The approaches of the ROB/ RUBs in lieu of the existing level crossings are being carried out by the State Highways and the Railway portion by the Railways. The above work is carried out on 50:50 cost sharing basis with the Railways.

2.5 EXTERNALLY AIDED PROJECTS

2.5.1 Tamil Nadu Road Sector Project II (TNRSP-II)

TNRSP-II has been formed for executing important road corridors to cater to high density traffic within the State. This is an Externally Aided Project, funded by the World Bank. The Project involves up-gradation and maintenance of high intensity traffic corridors of around 1170.227 Kms (EPC - 427.657 Km, PPP - 145.100 Km & OPRC - 597.470 Km).

Apart from up-gradation and maintenance of Project roads, TNRSP-II has taken up

Institutional Capacity Enhancement (ICE) of the Highways Department and Improving Road Safety activities within the State.

2.5.2 Chennai Kanyakumari Industrial Corridor (CKIC)

Chennai Kanyakumari Industrial Corridor (CKIC) is part of the economic corridors conceptualized by Government of India to boost the manufacturing sector. A Comprehensive Development Plan for CKIC has been prepared by Asian Development Bank aims at development of 6 industrial nodes viz., Cuddalore - Nagapattinam, Ariyalur - Perambalur, Thiruchirapalli - Pudukottai - Sivagangai, Madurai- Dindigul-Virudhunagar-Theni, Ramanathapuram, Thoothukudi-Thirunelveli. It has been envisaged to cover 24 Districts (13 Coastal Districts, 11 Interior Districts), encompassing various sectoral development. Under the road sector, a total length of 8047 Km road stretches comprising 4318 Km of National Highways and 3729 Km of State Highways have been identified for development in six phases.

Chennai Kanyakumari Industrial Corridor Project has been taken up with Asian Development Bank loan assistance on a fast track mode. In this project, 15 key linking corridors spread over 20 Districts under the Chennai Kanyakumari Industrial Corridor Influence Zone are to be upgraded.

2.5.3 Chennai Peripheral Ring Road (CPRR)

The Government of Tamil Nadu has planned to form Chennai Peripheral Ring Road (CPRR), to have a peripheral layer of road infrastructure which would provide connectivity to Ennore and Kattupalli Ports. The Chennai Peripheral Ring Road (CPRR) starts from Ennore port and ends at Poonjeri junction of ECR near Mamallapuram. It consists of 5 sections having a total length of 133.38 Km comprising 97.47 Km of new alignment and 35.91 Km in the existing road.

The Project encompasses salient aspects like access control and provisions for Intelligent Transport System (ITS) for the entire corridor to enhance the efficiency and safety.

2.5.4 TAMIL NADU ROAD DEVELOPMENT COMPANY (TNRDC)

TNRDC engaged in executing major infra projects, technological interventions and other pioneering works viz.,

Operation and Maintenance of East Coast Road (ECR) as Toll road Project for a period of 30 years since 2002. Chennai Outer Ring Road work of 60.15 km length from Vandalur to Minjur, Improvement works to the Northren Chennai Thermal Power Station Road and Kamarajar Port Road. Rajiv Gandhi Salai, Multi Level Car Parking (MLCP) at Siruseri, Elevated Corridor, Development of Integrated Traffic Infrastructure at Tidel Park Junction works through IT EXPRESSWAY LTD., (ITEL)

2.5.5 TAMIL NADU ROAD INFRASTRUCTURE DEVELOPMENT CORPORATION (TNRIDC)

2.5.5.1 ORAGADAM INDUSTRIAL CORRIDOR PROJECT

Considering the high intensity of traffic flow due to industrialization, Oragadam Industrial Corridor Project has been taken-up in 5 Phases.

2.5.5.2 MADURAI RING ROAD

Widening of 27.20 km Madurai Ring Road under BOT from two lane to four lane, starts at Dr. M.G.R. integrated bus stand (Km 0/0) and

ends at NH-7 near Kappalur Industrial Estate(Km 27/2).

2.6 TAMIL NADU MARITIME BOARD (TNMB)

The Thrust of the policy is to encourage effective Private Participation and speedy implementation of the Projects, co-ordinate the activities of the minor ports, optimise efficiency, and provide an integrated solution to the problems of the minor ports operation and management.

2.7 POOMPUHAR SHIPPING CORPORATION (PSC)

The coal required by TANGEDCO is transported from the load ports at Haldia, Paradip, Dhamra and Vishakapattinam to discharge ports at Ennore, Karaikal and Tuticorin.

Three ferries are being operated for carrying tourists from the Kanniyakumari shore to Vivekananda Rock Memorial and the Ayyan Thiruvalluvar statue by Poombuhar Shipping Corporation.

2.8 SUSTAINABLE DEVELOPMENT GOAL (SDG)

The United Nations have set up the Sustainable Development Goal (SDG) with 17

goals and 169 targets of which the goal and targets linked to Highways & Minor Ports Department. The country has set up its own India Index and indicators for measuring its progress in this aspect.

GOAL 3 - ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES.

- By 2020, halve the number of global deaths and injuries from road traffic accidents.

GOAL 9 - INDUSTRY, INNOVATION AND INFRASTRUCTURE

BUILD RESILIENT INFRASTRUCTURE,
PROMOTE INCLUSIVE AND SUSTAINABLE
INDUSTRIALIZATION AND FOSTER
INNOVATION.

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

The Road safety schemes and programmes are implemented by the Highways Department which has reduced road accidents and fatalities

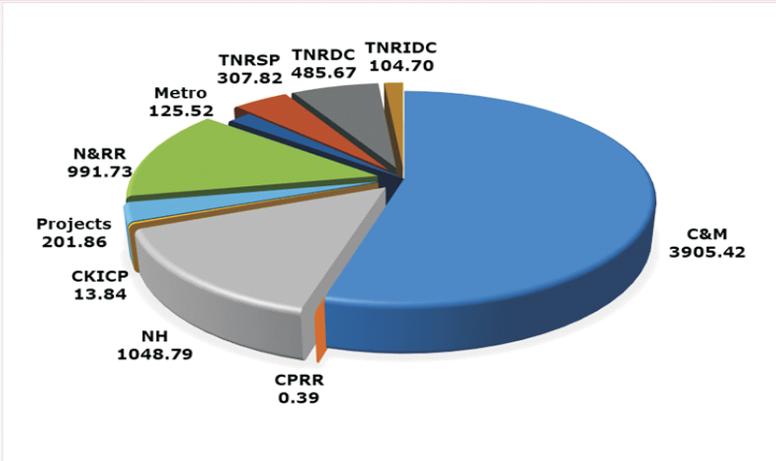
in Tami Nadu. The Chennai Peripheral Ring Road Project, Tamil Nadu Road Sector Project-II, Comprehensive Road Infrastructure Development Programme, Chennai Kanyakumari Industrial Corridor Project all of which deliver quality road network.

The Highways Department is constructing Ring roads, Bye-pass, Flyovers, Bridges etc. to improve the quality in vehicle traffic system.

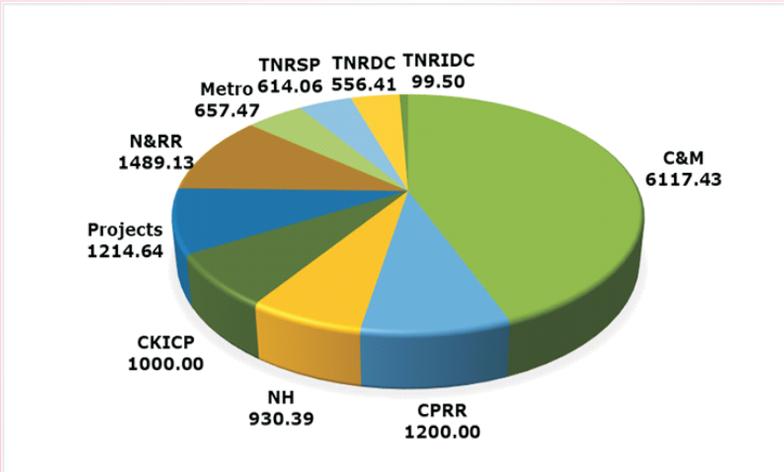
The specific indicators are sourced with schemes and programmes of Highways Department for regular monitoring and updating of data as ready reckoner in terms of SDG 2030 bench mark and future based yardstick.

2.9 OVERALL EXPENDITURE(2019-20) AND ALLOTMENT FOR 2020-21

During 2019-20, Rs11749 crore has been allotted for plan works. Out of which Rs.7186 crore has been incurred up to the month of February 2020. Budget allotment for Rs. 13879 crore has been made for implementation of various schemes for the financial year 2020-21



Plan Expenditure during 2019-20 up to February 2020
(Rs. in Crore)



Allotment for the year 2020-21 (Rs. in Crore)

3. STRUCTURE AND ACTIVITIES OF THE DEPARTMENT

3.1 ORGANISATIONAL STRUCTURE

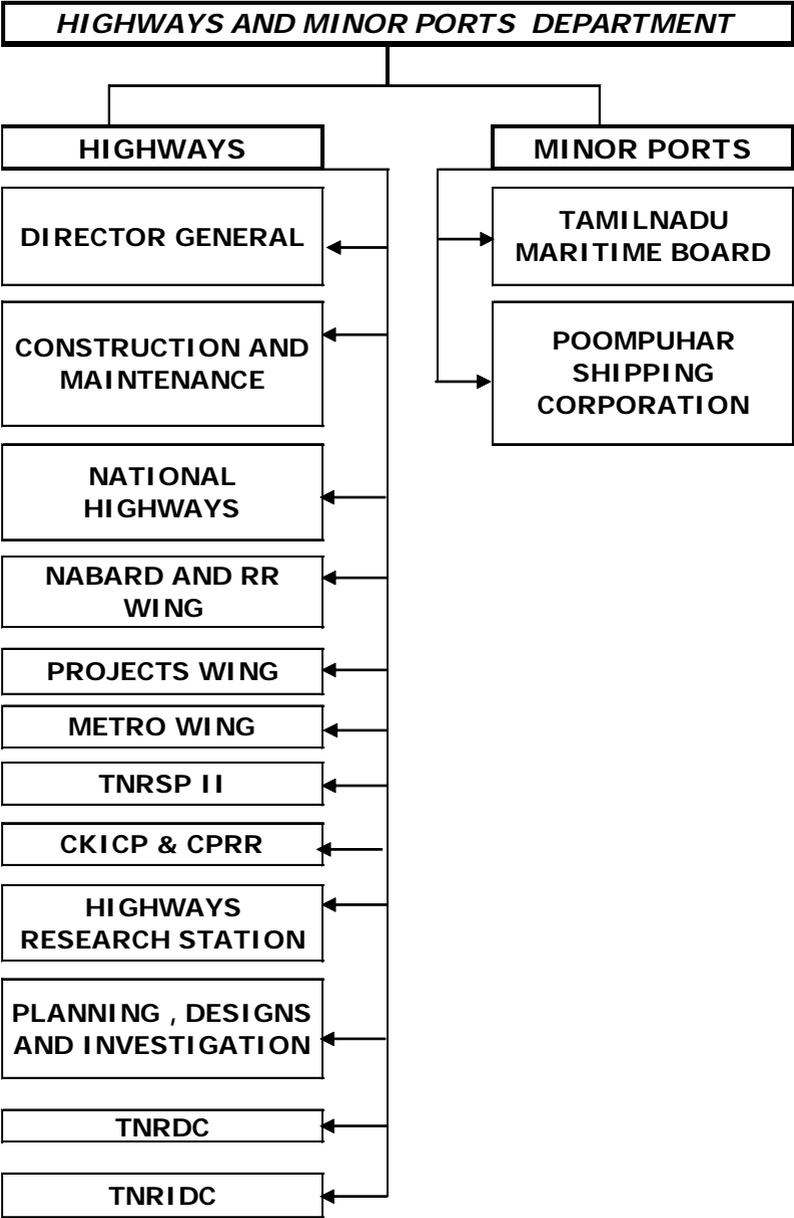
Appropriate planning is a basic requisite for the development. Proper Planning, Design, Construction, Maintenance and Quality control are necessary for the construction of roads, Bridges, Bypasses, Grade separators, ROB/ RUB, Foot Over Bridge, Pedestrian Subway, Sky walk & culverts. To carry out the above functions various wings have been formed in the Highways Department.

The Tamil Nadu Maritime Board is governed by an act of 1995 to provide for the constitution of the Maritime Board for minor ports in the State of Tamil Nadu and to vest the administration control and management of such port in that board and for the matters connected with.

Poompuhar Shipping Corporation Limited (PSC) was formed for the transportation of coal required for Tamil Nadu Generation and Distribution Corporation Ltd.(TANGEDCO) for the

generation of electricity and also to carry the ferry service for the tourists from the Kanniyakumari seashore to Vivekananda Rock Memorial and the Ayyan Thiruvalluvar statue at Kanniyakumari.

To carry out the above activities the following organization setup has been formed in the Highways & Minor Ports Department.



3.2 ACTIVITIES

3.2.1 DIRECTOR GENERAL'S OFFICE

❖ Functions

- Intra departmental Coordination for smooth and effective functioning of the Department.
- Establishment and Personnel administration.
- Monitoring the issues related to Quality control.
- Management and maintenance of Information Technology (IT) Applications viz.,
 - Managing the Electronic-Project, Administration, Traffic, Highway, Asset, Information Management System (e-pathai) related IT solutions.
 - Co-ordination of Road Accident Data Management System (RADMS).

- To co-ordinate with the field LA units in the matters of Land acquisition.
- Follow up and monitor Court cases.
- Any other work assigned by the Government.

❖ Administrative setup

The following officials functions under the head of Director General,

- Three Joint Directors
- Chief Officer (Information Technology Cell)
- Special District Revenue Officer (DRO)
- Law Officer through out-sourcing.

3.2.2 CONSTRUCTION & MAINTENANCE

❖ Functions

- Execution of road infrastructure works and bridge works under CRIDP in the categories of State Highways, Major District Roads and Other District Roads including bridges and grade separators.

- Formation of Bypasses
- Performance Based Maintenance Contract works
- Road safety Works
- Industrial connectivity roads
- Execution of Special repairs / Periodical renewal works and other maintenance for proper upkeep of State Highways, Major District Roads, Other District Roads, Sugarcane roads and bridges.
- Execution of spill-over works under Tsunami Rehabilitation Programme sanctioned earlier.
- Flood Permanent Restoration works and restoration of damages to road assets during floods, monsoon etc.

❖ Administrative setup

This wing is headed by Chief Engineer and functioning with 8 Circles and 41 Divisions.

3.2.3 NATIONAL HIGHWAYS WING

❖ Functions

- National Highway projects are executed under broad heads of plan and non-plan category with the funds provided by MORT&H, GOI
- Improvements to the state roads viz., State Highways, Major District Roads, Other District Roads under Revamped Central Road Fund Scheme (RCRF), Economic Importance (EI) and Inter-State Connectivity (ISC) scheme with the funds provided by Govt. of India from Central Road Fund (CRF).
- The 'Rural Development Department' Government of India provides funds for improvement of "Other District Road" under " Core Road Network" through "Pradhan Mantri Gram Sadak Yojana" (PMGSY) programme which involves upgradation and maintenance of the stretch.

❖ Administrative setup

This wing is headed by Chief Engineer and functioning with 4 Circles and 17 Divisions.

3.2.4 NABARD and Rural Roads

❖ Functions: -

- Construction / Reconstruction of Bridges across Rivers, Streams, Channels, in lieu of existing causeways, unbridged crossings with NABARD loan assistance & State contribution (80:20).
- Upgradation of Panchayat Union Roads / Panchayat Roads to Other District Roads standard under State Fund.
- Construction of Road over Bridges / Road under Bridges are taken up under Railway works Programme on 50:50 cost sharing basis.
- Under State Fund, land acquisition for the formation of Bypasses are taken up.

❖ Administrative setup

This wing is headed by Chief Engineer and functioning with 4 Circles and 14 Divisions.

3.2.5 PROJECTS

❖ Functions

- Executing the Road Over Bridges (ROB), Road Under Bridges (RUB) in lieu of the existing level crossings under Railway Works Programme in coordination with Railways.
- Construction of Major River Bridges, Grade Separators, Bypasses, Ring Roads and Elevated Corridors are also being implemented under State fund in Projects wing.

❖ Administrative setup

This wing is headed by Chief Engineer and functioning with 4 Circles and 10 Divisions.

3.2.6 METRO

❖ Functions

- Formation of roads, Construction of High Level Bridges, Grade separators, Foot Over Bridges (FOBs), Pedestrian subways and Skywalks within the Chennai Metropolitan Area (CMA).

- Implementation of Road Over Bridges / Road Under Bridges within CMA.

❖ Administrative setup

This wing is headed by Chief Engineer and functioning with one Circle and 5 Divisions.

3.2.7 TAMIL NADU ROAD SECTOR PROJECT (TNRSP II)

❖ Functions

- Upgradation of road works with the World Bank assistance through EPC, PPP and OPRC mode.
- Strengthening the organisational set-up of the Department.
- Road safety related works.
- Preparation of new DPR works under TNIDB funds.

❖ Administrative setup

This wing is headed by a Project Director and Chief Engineer and functioning with 2 Circles and 8 Divisions.

3 Spl. DROs (LA) and 7 Spl.Tahslidhars are working in this wing for Land Acquisition works.

The ICERS cell is functioning with one Superintending Engineer and one Divisional Engineer.

3.2.8 CHENNAI - KANYAKUMARI INDUSTRIAL CORRIDOR PROJECT (CKICP)

❖ Functions

- Upgrading the high density corridor in the influencing zone of Chennai-Kanyakumari Industrial Corridor (CKIC) with ADB loan assistance.

❖ Administrative setup

This wing is headed by Project Director and Chief Engineer and functioning with 2 Circles, 6 Divisions and 5 Special District Revenue Officers.

3.2.8.1 CHENNAI PERIPHERAL RING ROAD (CPRR)

❖ Functions

- Monitoring the execution work of CPRR which is done by Tamil Nadu Road

Development Company and Tamil Nadu Road Infrastructure Development Corporation.

- Obtaining necessary clearances like Environmental Clearance, Forest Clearance and Coastal Regulatory Zone Clearance.
- Liaisoning with State and Central Government for obtaining the approval of proposals and seeking the loan from multilateral banks and bilateral banks.
- Liaisoning with Banks (JICA, AIIB & OFID) in obtaining approval for the procurement of Consultants and Contractors.

❖ Administrative setup

This wing is headed by Project Director and Chief Engineer of Chennai Kanyakumari Industrial Corridor Project functioning with one Superintending Engineer, one Divisional Engineer and one Special District Revenue Officer.

3.2.9 HIGHWAYS RESEARCH STATION

❖ Functions

- Research on new materials and technology to be adopted for Road and Bridge construction.
- Tests on soil, steel, concrete, bituminous materials and mix designs for road and bridge construction.
- Collection of Road surface condition Data through Advanced Data Collection Equipments.
- Remedial measures for elimination of black spots.
- Suggestions for improving the junction.
- Quality control and assurance at every stage, for all the works executed by Highways Department.
- Conducting training programmes to update the latest technologies and best practices.

❖ Administrative setup

Highways Research Station, being the Research and Quality Control wing, functioning

with Director, HRS (in the cadre of CE), Joint Director (in the cadre of SE), 4 Deputy Directors (in the cadre of DE) and 8 Divisional Engineers(H), Quality Control.

3.2.10 PLANNING, DESIGN AND INVESTIGATION

❖ Functions

- Carrying out field investigation and collecting required data from other departments for all major bridge works.
- Preparation of structural design, drawings and quantity estimates for High Level Bridges, Road Over Bridges, Road Under Bridges, Grade Separators and Flyovers.
- Proof checking of design and drawings prepared by consultants and alternate designs furnished by bidders.

❖ Administrative setup

Planning, Design and Investigation wing is headed by Chief Engineer and functioning with one Joint Chief Engineer, 4 Design Divisions and 5 Investigation Divisions.

3.2.11 TAMIL NADU ROAD DEVELOPMENT COMPANY (TNRDC)

❖ Functions

- Implementing major Public Private Partnership (PPP) projects.
- Management of Chennai Outer Ring Road (CORR) works.
- Concessionaire for Rajiv Gandhi IT Expressway construction and maintaining it as toll road.
- Concessionaire for East Coast Road (Chennai to Puducherry) construction and maintaining it as toll road.
- Supervision Consultancy for Ennore Manali Road Improvement Project (EMRIP)
- Managing Associate for construction of CPRR Section-I (Northern Port Access Road) project.
- Managing Associate for Rajiv Gandhi Salai Phase-II from Siruseri to Mamallapuram; stage-I for Kelambakkam – Tiruporur Bypasses.

- Implementation of Northern Chennai Thermal Power Station Road and improvements to Kamarajar Port Trust Road are being taken up as deposit work for M/s. Kamarajar Port Limited.

❖ Administrative setup

TNRDC is managed by high powered committee with the following members,

- Nominees of Government of Tamil Nadu,
- Tamil Nadu Industrial Development Corporation Ltd (**TIDCO**),
- TIDEL Park Limited (**TIDEL**)
- Independent Directors

3.2.12 TAMIL NADU ROAD INFRASTRUCTURE DEVELOPMENT CORPORATION (TNRIDC)

❖ Functions

- Formulate Tamil Nadu Road Infrastructure Development Corporation (TNRIDC) for implementing, upgrade and maintain

the road infrastructure under State Government.

- Upgrading road and Construction of bridges, Grade Separators etc., required in Industrial areas in Oragadam, Kancheepuram District.
- Improving the Madurai Ring Road

❖ Administrative setup

- Chairman cum Managing Director Principal Secretary, Highways and Minor Ports Department.
- Board of Directors representatives from various Departments of Government of Tamil Nadu.

3.2.13 TAMIL NADU MARITIME BOARD

❖ Functions

- A Statutory Board under Highways and Minor Ports Department with a mandate to administer, control and manage the Minor Ports in the State and for matters connected therewith

and to implement the objective of Minor Port Development Policy of Government of Tamil Nadu.

❖ Administrative setup

Tamil Nadu Maritime Board is functioning under the Chairmanship of Hon'ble Chief Minister of Tamil Nadu.

3.2.14 POOMPUHAR SHIPPING CORPORATION LIMITED

❖ Functions

3.2.14.1 MOVEMENT of COAL

The entire domestic coal allotted by the Indian coal companies is transported to the TANGEDCO and NTECL from the load ports of Haldia, Paradip Dhamra, Gangavaram and Vishakapattinam to the discharge ports at Ennore, Karaikal and Tuticorin through the ships chartered from the shipping companies.

3.2.14.2 OPERATION OF FERRY SERVICE

The corporation is operating Ferry service for the tourists from the Kanniyakumari seashore to Vivekananda Rock Memorial and the Ayyan

Thiruvalluvar statue at Kanniyakumari. Presently, three ferries with a seating capacity of 150 each are being operated.

❖ Administrative setup

1. The Chairman and Managing Director, Poompuhar Shipping Corporation Limited

Board of Directors

2. The Chairman and Managing Director Tamil Nadu Generation and Distribution Corporation Limited
3. The Principal Secretary to Government, Highways and Minor Ports Department
4. The Principal Secretary to Government Energy Department
5. The Special Secretary to Government Finance Department
6. Vice Chairman and Chief Executive Officer, Tamil Nadu Maritime Board
7. The Director (Finance) Tamil Nadu Generation and Distribution Corporation Limited

8. The Director (Finance)
Tamil Nadu Transmission Corporation
Limited
9. One Independent Director in the field of
Marine Engineering and
10. One Independent Director in the rank
of captain of the ship

The day to day activities are executed by the various internal wings namely technical, Personnel & Administration, operation and finance headed by the qualified officers in their respective fields.

4. OFFICE OF THE DIRECTOR GENERAL

The Office of the Director General is headed by Director General and supported by three Joint Directors, one Chief Officer (Information Technology Cell), Special District Revenue Officer (Land Acquisition) and Law Officer through out-sourcing.

4.1 ADMINISTRATION

The establishment and administrative related aspects of all wings are under the control of the Director General's Office.

4.1.1 HUMAN RESOURCES

4.1.1.1 *Staff Strength*

The Department is handling road infrastructure projects around Rs.10,000 Crore annually. Effective implementation, monitoring, maintenance and Quality assurance of works are carried out by the following strength of staffs.

- Director General / Chief Engineer 10
- Superintending Engineer 33
- Divisional Engineer 159
- Assistant Divisional Engineer 525
- Assistant Engineer / Junior Engineer 1073
- Technical Staffs 842
- Accounts Branch 193
- Administrative Branch 4632

4.1.1.2 Appointments

In general due to promotion, retirement strength of the different cadre falls vacant every year. Hence, vacancies accruing annually in various posts are filled-up through Tamil Nadu Public Service Commission (TNPSC), Compassionate grounds and Promotions.

During 2019-20, through TNPSC 155 Assistant Engineers, 15 Assistants and 32 Junior Assistants have been recruited. Also, 11 Junior Assistants, 7 Typists, 15 Record Clerks and 12 Office assistants were filled through Compassionate Grounds.

4.1.2 Training

Training helps to update latest knowledge and refreshes the already learnt principles. Training is imparted on various technical and non technical subjects.

The Engineers and supporting staff of the department are being deputed to undergo training in the following reputed national training institutes.

- 80th Annual session of Indian Roads Congress, Patna - 16
- Indian Academy of Highway Engineers, Noida - 68
- Anna University, Chennai - 39
- Anna Institute of Management, Chennai - 205

During 2019, 501 officials were deputed for the training programmes, of which 270 were Engineers. In all, 156 women were trained.

4.2 INFORMATION TECHNOLOGY (IT) CELL

The IT Cell is functioning with the objective of developing and upgrading various Highways

related software systems, operationalizing the same and maintaining the hardware.

The major applications are :

- I. Road Maintenance and Management System (RMMS)
 - To manage road assets, data like road condition, work history, Bridges and Culverts, Pavement Composition and Traffic Census.
 - Support for planning of resources, prioritization of works and budget preparation.
- II. Geographical Information System (GIS)
 - To view the attributes of RMMS in a spatial form.
 - Support for effective decision making and planning.
- III. Integrated Project, Human Resource and Finance Management System (P&FMS)
 - Computerization and automation of the existing manual procedures and

process followed in the Project Management.

- To update the digital database for the Financial Management.

IV. Tamil Nadu Highways Project Monitoring System (TNHPMS)

- To monitor the progress of works from all the wings of Highways Department.

V. Websites:

- The following websites are developed and maintained by IT Cell:

➤ <https://www.tnhighways.gov.in>

➤ <https://www.tnrsp.gov.in>

➤ <https://www.ckicp.tnhighways.gov.in>

4.3 TECHNICAL COMMITTEES

The following committees have been formed for the effective functioning of the Department:

- **Board of Engineers (BoE)** is the apex technical body for taking policy decision on technical and other important issues. This is Headed by Director

General, with all the Chief Engineers and the Director, HRS.

- **Commissionerate of Tenders (CoT)**
Take expeditious decisions on the recommended tenders under the Chairmanship of Director General and the Secretary, Finance / representative, the Chief Engineer (Construction and Maintenance), the Chief Engineer (NABARD and Rural Roads) as its members and also with the concerned Chief Engineer.
- **Revised Administrative Sanction Committee (RASC)** scrutinizes the Revised Administrative Sanction Proposals and recommends to the Government which comprises of the Director General, the Chief Engineers concerned, Chief Engineer (Planning, Designs and investigation), Additional/ Deputy Secretary to Government (Highways and Minor Ports Department) and Deputy Secretary to Government (Finance Department).

- **Technical Audit Committee (TAC)** comprises of the Director General, Director, HRS and the Chief Engineers of all the wings as its members which offers expert opinion in the project proposals involving technical issues based on the suitability.

4.4 SPECIAL LAND ACQUISITION UNIT

One Land Acquisition (LA) unit headed by DRO and eight units in Chennai, Villupuram, Trichy, Madurai, Salem, Tiruppur, Coimbatore and Thirunelveli Circles are functioning with retired Revenue Department Officials through out-sourcing mode. The above unit is coordinating with the Revenue Department to expedite the LA process.

Due to the rapid growth of transportation network, projects like construction of new bypasses, ring roads, grade separators, ROB/RUB, High Level Bridges are taken up. These projects warrant acquisition of land. At present an extent of 1853 Hectares in 554 villages are to be acquired for 198 works.

The delay in acquisition of the land for the projects causes time and cost overrun. To hasten the Land Acquisition process, proposal of LA unit with three Special DROs (LA) with due delegation of powers and 8 Thasildars with supporting staff is under consideration.

4.5 SPECIAL UNIT FOR LEGAL ASSISTANCE

The Department on every day need to handle large number of court cases related to technical, Land acquisition and personnel administration. These Legal issues require close monitoring and continuous follow up involving considerable time and man power. Hence, a legal officer has been outsourced to liase with the Hon'ble Courts and to assist the Department staff in all court cases.



Hon'ble Chief Minister, Tamil Nadu reviewed the progress of works of the department on 27.02.2020



Hon'ble Chief Minister, Tamil Nadu issued appointment orders on 06.03.2020 to newly recruited Assistant Engineers through the TNPSC

5. CONSTRUCTION AND MAINTENANCE

The Construction and Maintenance wing of Highways Department is headed by a Chief Engineer and functions with 8 Circles and 41 Divisions.

This wing maintains a total length of 59405 km length of roads categorized as State Highways, Major District Roads and Other District Roads.

Road infrastructure development works like Widening, strengthening, improvement and Improvement of Riding Quality (IRQP), construction of flyovers/grade separators, construction of Bridges, Culverts, Bypasses, and Road safety works are taken up under various schemes.

The details and achievements of various schemes are summarized below.

5.1 PLAN WORKS

5.1.1 Comprehensive Road Infrastructure Development Programme (CRIDP)

The concept of Comprehensive Road Infrastructure Development Programme is to develop the road infrastructure in a holistic manner which includes works like widening, strengthening, improving the riding condition, construction of bypasses, bridges, culverts, road safety works etc. In this scheme, importance is given for capacity augmentation and road safety. Increase in service levels are targetted to meet the Sustainable Development Goals.

5.1.1.1 CRIDP - State Highways

In 2019-20, spill-over works at a cost of Rs.685.80 Crore were taken-up comprising widening, improvements to 488.63 km length of roads and construction of 253 bridges/culverts / protective works .

Further, New works of widening and improvements to 469.13 km length of roads, construction of 1 bridge and 10 culverts and 506 protective works were sanctioned at a cost of

Rs.1056.49 Crore. The works are under progress.

During 2019-20, the second level fly over at Gandhipuram in Coimbatore city was completed and opened to traffic on 29.01.2020.

Some of the major works sanctioned in the year 2019-20 are listed below:

- In Dindigul district, Widening and Improvements of Roads around Palani Arulmigu Dhandayuthapani Swamy Temple comprising of 5 roads including Reconstruction of CD works and other protective works at a cost of Rs.58.90 Crore
- In Trichy district, Widening from Two lane to Three lane and Improvements of Nagapattinam - Gudalur - Mysore road at km 142/2 - 153/0 including Construction of Retaining wall, Protective wall and Drain (SHU 153) at a cost of Rs.55.75 Crore
- In Ramanathapuram district, Widening from Two lane to multi lane and

Improvements at Km 0/0 - 3/8 & 6/0 – 8/900 and improvements at Km 0/0 - 8/900 of Madurai - Dhanuskodi road (Abandoned NH49) Paramakudi Urban Limit (SHU) at a cost of Rs.22.97 Crore.

- In Namakkal district, Widening from Four lane to Six lane and Strengthening of Varanasi - Kanyakumari Road (Abandoned NH7) Namakkal Urban at km 249/150 - 251/600 including CD works and Storm water drain (SHU 121) at a cost of Rs.17.20 Crore.
- In Kancheepuram district, Formation of Service Road at Km 5/0 - 6/250 of Pallavaram - Thoraipakkam Road (SH 109) at a cost of Rs.7.20 Crore.

During 2015 to 2019, widening, improvements in 3999 km length of roads and 735 bridges/ culverts/ protective works have been completed at an expenditure of Rs. 5155.76 Crore.

During 2019-20, widening, improvements in 452 km length of roads and 28 bridges/culverts, 236 protective works have been completed upto February at an expenditure of Rs.960.34 Crore.

Budget allotment of Rs 1197.36 Crore has been provided for the year 2020-21.

5.1.1.2 CRIDP - Major District Roads

In the year 2019-20, spill-over works of widening and improvements to 665.06 km length of roads and construction of 153 bridges/culverts/ protective works were taken-up at a cost of Rs.471.50 Crore.

In addition, widening and improvements to 805.14 km length of roads, construction of 1 bridge, 8 culverts and 450 protective works were sanctioned at a cost of Rs.867.56 Crore and are in progress.

Some of the major works sanctioned in this year are listed below:

- In Erode district, Widening from Intermediate lane to Two lane and

Improvements of Pasur R.S - Vellodu road (MD 885) at km 16/0 - 18/4,23/2-26/0 including culverts and protective wall (MD 885) at a cost of Rs.3.20 Crore.

- In Nagapattinam district, Strengthening of Kuravapulam - Karuppampulam - Kadinavayal Road at km 5/0 - 8/900 (MD 837) at a cost of Rs.2.10 Crore.
- In Erode district, Widening from Two lane to Three lane and Improvements of Kodivery Dam road at km 0/0 - 0/2 and 1/0 - 2/0 including Construction of RCC Slab Culvert at Km 1/4 and construction of Retaining wall at km 1/6 (MD 175) at a cost of Rs. 2.00 Crore.
- In Perambalur district, Reconstruction of Minor bridge across Local Odai in lieu of Existing damaged piped causeway at km 24/2 of Alathur - Ariyalur road including widening from Intermediate lane to Two lane and Improvements at

Km 24/0-24/2 (MD 818) at a cost of Rs.2.00 Crore.

- In Vellore District, Widening from Intermediate lane to Two lane and Improvements of Kilveethi – Minnal-Ameerpet Road at km 15/6 - 16/2, 17/4 - 19/0 and 20/2 - 20/8 including Construction of Culvert at Km 15/8 and 17/4 (MD 792) at a cost of Rs.1.98 Crore.
- In Nilgris district, Improvements of Coonoor - Kundah road at km 13/0 - 16/0 including Providing of CC Drain and Protective Wall (MD 86) at a cost of Rs.1.97 Crore.

During 2015 to 2019 Widening/ improvements in 3210 km length of roads and 541 bridges/ culverts/ protective works have been completed at an expenditure of Rs 2847.08 Crore.

Widening/ improvements in 598 km length of roads and 20 bridges/ culverts, 297 protective works have been completed upto February at an

expenditure of Rs.649.42 Crore in the year 2019-20.

Budgetary outlay of Rs.847.92 Crore has been provided for the year 2020-21.

5.1.1.3 CRIDP - Other District Roads

Spill-over works for the year 2019-20 at a cost of Rs.1621.44 Crore comprising of widening and improvements to a length of 1904.603 km roads and construction of 355 bridges/ culverts/ protective works were taken-up.

In addition, during 2019-20 works of widening and improvements to 1599.22 km length of roads, construction of 1 bridge, 34 culverts and 746 protective works have been sanctioned at a cost of Rs.1310.23 Crore and are in progress.

Some of the major works sanctioned in this year are listed below:

- In Krishnagiri district, Widening from Single lane to Two lane and Strengthening of Shoolagiri - Rayakottai road at km 0/0 - 5/6

including CD Works and protective works at a cost of Rs.6.00 Crore.

- In Thanjavur district, Improvements of Vadiyakkadu - Kalyanaodai road at km 0/0 - 7/4 including Reconstruction of culvert at Km 1/8 at a cost of Rs.3.44 Crore.
- In Tiruvannamalai district, Improvements of Cuddalore-Chittoor to Madhalampadi road (via) Sorakolathur at km 0/0 - 4/2 including Reconstruction of culvert at Km 0/6, 0/10, 1/10, 1/2, 2/2, 3/8, Construction of Retaining wall at Km 1/4 - 2/0 at a cost of Rs.1.98 Crore
- In Karur district, Widening from Single lane to Intermediate lane and improvements of the road branching at Km 221/6 of Nagapattinam - Gudalur - Mysore road to Andankoil -Agraharam road in km 0/0 - 2/300 including Widening of Culvert and Construction of Retaining Wall at a cost of Rs.1.98 Crore.

- In Ariyalur district, Widening from Single lane to Intermediate lane and Improvements of Kallagam Gate - Angiyanur road at km 0/0 - 1/4 including Reconstruction of pipe culvert at Km 0/2, 1/2 and Construction of Retaining wall at km 0/10 at a cost of Rs.1.74 Crore.
- In Tenkasi District, Widening from Single lane to Intermediate lane and Improvement of Devipattinam - Western Ghat road in km 2/2 - 4/659 including CD works at a cost of Rs.2.00 Crore.

During 2015 to 2019 Widening/ improvements in 8663 km length of roads and 704 bridges/ culverts/ protective works have been completed at an expenditure of Rs 3663.95 Crore.

Widening and improvements in 1835 km length of roads and 86 bridges/ culverts, 649 protective works have been completed in the financial year 2019-20 upto February at an expenditure of Rs.1153.88 Crore.

Budgetary allocation of Rs.1650.95 Crore has been made for the year 2020-21.

5.1.1.4 CRIDP - Other District Roads – Special Component Plan

Widening / improvements to 343.875 km length of roads and construction of 13 culverts as spill over works were taken-up in the year 2019-20 at a cost of Rs.195.03 Crore.

In addition during 2019-20 works of widening and improvements to 383.08 km length of roads, construction of 17 protective works were sanctioned in 2019-20 at a cost of Rs.247.41 Crore and are in progress.

Some of the major works sanctioned in this year are listed below:

- In Erode district, Widening from Single lane to Intermediate lane and Improvements of Anthiyur - Athireddiyur- Maravapalayam road at km 0/0 - 1/0 including Construction of Retaining wall Drain and Curve Improvements at a cost of Rs.1.99 Crore.

- In Pudukottai District, Improvements of road starting from Km 6/8 of Chithathikadu - Keeramangalam road to Neivathali via Kodikarambai at km 0/0 - 3/0 including Reconstruction of Culverts and construction of Retaining wall at a cost of Rs.1.97 Crore.
- In Tenkasi district, Widening from Single lane to Intermediate lane and improvements of Madathupatti - Ariyanayagipuram road at km 1/4 - 2/4 including construction of Retaining wall at Km 0/10, 1/2 and CD works at a cost of 1.99 Crore.

During 2015 to 2019 Widening/ improvements in 2055 km length of roads and 24 bridges/ culverts/ protective works have been completed at an expenditure of Rs.731.52 Crore.

Road works to a length of 311 km and 12 protective works have been completed during 2019-20 upto February at an expenditure of Rs.159.86 Crore.

Budgetary provision of Rs.217.42 Crore has been allotted for the year 2020-21.

5.1.1.5 Improvements of Riding Quality Programme (IRQP)

This component under CRIDP Scheme was introduced in the year 2018-2019 to cover more length of roads.

Spill-over works of Improvements of Riding Quality in 1122 km length of roads were taken-up in the year 2019-20 at a cost of Rs.262.21 Crore.

New works under IRQP for 3597.20 km length of roads were sanctioned at a cost of Rs.1039.78 Crore during 2019-20 and works are in progress.

Road works to a length of 2660 km were completed during 2018-19 at an expenditure of Rs 587.78 Crore

Road works to a length of 1602 km were completed during 2019-20 upto February at an expenditure of Rs.345.97 Crore.

Budgetary provision of Rs.645.74 Crore has been allotted for the year 2020-21.

5.1.1.6 Performance Based Maintenance Contract (PBMC)

Performance Based Maintenance Contract is an innovative approach of road maintenance followed in various countries. This is a cost effective and time saving initiative to keep the roads in optimal riding condition throughout the year.

Under this Scheme all State Highways and Major District Roads of a Division are taken up for a 5-year contract period. The components of PBMC scheme are Initial Rectification, Periodical Renewal, Minor Improvements, Ordinary Maintenance and Emergency works.

The Performance Based Maintenance Contract has been introduced in Pollachi Division in February 2014 for 377.38 km length of roads and completed in February 2019. PBMC was sanctioned in total for 1372 km of SHs and 1196 km of MDRs during 2015 in Krishnagiri, Ramanathapuram, during 2016 in Tiruvallur and during 2017 in Virudhunagar PBMC at a cost of

Rs.2152.65 Crore. Maintenance works in these divisions are in progress now.

In 2019-20, Performance Based Maintenance Contract has been approved for Palani, Sivagangai Divisions at a cost of Rs.1403.26 Crore for 1065.85 km length of roads. Initial rectification works are in progress in Palani and tender is under process in Sivagangai. Also, PBMC in Thanjavur has been sanctioned during 2019-20 at a cost of Rs.1947.23 Crore for 833.658 km length of roads.

During 2019-20 upto February, an expenditure of Rs.446.32 Crore has been made.

Budget allocation for the year 2020-21 Rs.940.61 Crore.

5.1.2 Extended Greater Chennai Corporation Area Development

In order to enhance the road infrastructure facilities within the Extended Chennai Corporation area, various works have been sanctioned as tabulated

Detail	No. of works	Amount Rs. in Crore
Phase – I	14	250
Phase – II	22	150
Total	36	400

During 2015 to 2019, 35 works have been completed at a cost of Rs.325.04 Crore. During 2019-20, remaining one work was completed upto February at an expenditure of Rs.8.04 Crore.

During 2019-20, 11 works have been sanctioned at a cost of Rs.106.51 Crore and are in various stages of implementation.

Budget provision of Rs.57.39 Crore has been allotted for the year 2020-21.

5.1.3 Formation of Bypasses

Bypasses help in decongestion of highly populated cities and towns. Bypasses are being formed in State Highways in Municipal towns.

Bypasses ensure free flow of traffic and help in saving vehicle operation cost.

In Salem district, Tharamangalam bypass was opened to traffic on 21.07.2019.

Formation of bypass in Thiruthani is in progress and Manachanallur bypass will be commenced soon. The Land Acquisition is in progress for 21 bypasses at a cost of Rs.871.44 Crore

During 2019-20, an amount of Rs.7.19 Lakh has been sanctioned for preparation of Detailed Project Report in Gudalur.

5.1.4 Formation of Road Grids along Chennai Outer Ring Road (CORR)

For the effective dispersal of traffic emanating from the Chennai Outer Ring Road (CORR), the preparation of Detailed Project report for the Development of Road Grids was taken up at a cost of Rs.5.22 Crore.

The DPR work has been completed for 14 Road Grids covering 25 roads. The 4 Lane/ 2 Lane/ single lane roads are proposed for widening to 6 Lane/ 4 Lane/ 2 Lane with Paved

Shoulders configuration respectively. Land acquisition and road works will be considered in a phased manner.

5.1.5 Tamil Nadu Investment Promotion Programme - Phase II (TNIPP-II)

Mahindra Industrial Park Chennai Limited (MIPCL), is located at Pudukkottai of Gummidipoondi taluk and Eliambedu of Ponneri taluk of Tiruvallur district. Four laning of the existing road was sanctioned to facilitate faster cargo container traffic. Widening of the Pudukkottai – Pulicat Road from km 2/0 - 6/2 to four lane was sanctioned under TNIPP. Work will be taken up after completion of Land Acquisition.

5.1.6 Road Safety Works

Under the Sustainable Development Goal, it was assured to halve the deaths due to road accidents, by the year 2020. This Department strives to make the roads safer for the users by implementing long term and short term measures.

The department takes various steps in coordination with all stake holders to minimize the loss due to road accidents. The preventive

measures taken includes installation of cautionary sign boards at critical locations, speed control measures, crash barriers and other road furniture.

The Road Safety Audit has been conducted and completed in all the State Highways and Major District Roads of Highways Department as per the guidance of the Supreme Court Committee on Road Safety.

After analyzing all the roads, the suggestions on the identified locations were given by the Road Safety Audit Team. Accordingly road safety measures are being taken up under various plan schemes.

Under Road Safety Fund a sum of Rs.400 Crore has been sanctioned for Road safety works from the year 2015-16 to 2018-19. In the CRIDP scheme also, road safety works were taken up from 2014-15 onwards. Thus, road safety works to a tune of Rs.2087.16 Crore were taken-up under road safety funds and CRIDP so far.

During 2019-20, 1261 works have been sanctioned at a cost of Rs.319 Crore in CRIDP

and 664 works at a cost of Rs.100 Crore in Road Safety scheme for the year 2018-19 and all works are in progress.

During 2015-16 to 2018-19 road safety works have been completed at an expenditure of Rs.428.67Crore.

During 2019-20, 453 No. of road safety works have been completed upto February at an expenditure of Rs.59.11 Crore.

Budgetary provision of Rs.100 Crore has been allotted for the year 2020-21.

5.1.7 State Infrastructure and Amenities Development Fund

Under State Infrastructure Amenities Fund, 15 works have been sanctioned at a cost of Rs.84.18 Crore in Krishnagiri, Madurai, Perambalur, Sivagangai and Theni districts through funds provided by Town and Country Planning Department, based on the approval of State Infrastructure and Amenities Promotion Committee. The work in Perambalur district has been completed. Works in other Districts are in progress.

5.1.8 Works - Detailed Project Report

For Bypasses and major bridges involving site investigation and land acquisition, preparation of Detailed project report is taken up as a first phase

5.1.8.1 *Grade separators*

During 2019-20, an amount of Rs.100.63 Lakhs has been sanctioned for preparation of Detailed Project Report for construction of 5 Grade separators in Madurai, Theni, Tirupur and Krishnagiri districts and are in progress.

5.1.8.2 *Improvement Works in Corporation Limits*

Preparation of Detailed Project Report for enhancing the infrastructure facilities in city road network lying within the Corporation limits was sanctioned for an amount of Rs.252.73 Lakhs in Madurai, Dindigul, Thanjavur, Thoothukudi, and Trichy. Works are in progress.

5.1.9 Permanent Flood Restoration Works

During 2018-19, construction of culverts, minor bridges, major bridges, box culvert, retaining wall, drains have been sanctioned for Rs.514.05 Crore . These works are in progress.

Further an amount of Rs.2.16 Crore has been sanctioned for preparation of Detailed Project Report for 21 bridges. Out of which, Government have sanctioned Rs.76.28 Crore for Construction of 8 no of bridges in Thanjavur district. DPR for remaining works are being prepared.

During 2019-20, 200 Nos of Flood Restoration works such as providing Paver blocks, Drains, Protective walls and Culverts have been sanctioned at a cost of Rs.112.07 Crore in Udagamandalam, Pollachi and Coimbatore divisions . All works are in progress.

5.2 NON PLAN WORKS

5.2.1 Maintenance Works

Timely maintenance such as patch works, maintenance of berms, clearing the water ways, drains, jungle clearance will increase the design life of the roads and reduction in the life cycle cost of the roads which also reduces the cost of maintenance.

During 2015-19, renewal of 13328 Km length of roads have been completed at a cost of Rs.3843.82 Crore.

Renewal for 1082 km length of roads have been completed at an expenditure of Rs.376.24 Crore during 2019-2020.

Budget provision of Rs.747.04 Crore has been made for 2020-21.

5.3 OVERALL EXPENDITURE 2019-20 AND ALLOTMENT FOR 2020-21

Overall expenditure of Rs.3905.42 Crore has been incurred during 2019-20 upto February. One bypass work has been completed and 4798 Km length of road works, 1328 bridges/culverts/protective works have been completed.

A budgetary allocation of Rs.6117.43 Crore has been made for 2020-21.



Avenue Plantation in Thanjavur Bypass



Tharamangalam Bypass

6. NATIONAL HIGHWAYS

The National Highways wing is headed by a Chief Engineer and functions with 4 circles, 13 Divisions, 4 Quality Control Divisions and 1 Bus port Division.

Tamil Nadu State has 6634 km length of National Highway network, out of which 1900 km length is under the maintenance of state NH wing.

6.1 ANNUAL PLAN

The National Highways wing undertakes Plan, Non-Plan, Periodical renewal, Improvement of Riding quality and Flood Damage Repair works on NH stretches with the funds allotted by Government of India.

6.1.1 Plan Works-NH (Original works)

Plan works comprises widening, strengthening, construction, rehabilitation and reconstruction of bridges & culverts.

During 2019-20, 52 works at a cost of Rs.1533.29 Crore, have been taken-up as spill-over works. In 2019-20, Ministry of Road Transport and Highways has sanctioned 5 no. of

road works for 26.71 km length and 7 bridge works at a cost of Rs.167.10 Crore and the works are in tender stage.

During 2015-19, widening, improvements in 972.01 km length of roads and 27 bridges/culverts, protective works have been completed at an expenditure of Rs. 2525.19 Crore.

In 2019-20 upto February, 96.95 km length have been completed at a cost of Rs.460.35 Crore.

The projects completed are given below;

- Strengthening & Reconstruction of Minor bridge at selected stretches of NH 209 (New NH.No. 948) to a total length of 43.60 km at a cost of Rs. 49.06 Crore
- Strengthening at selected stretches of NH 67 (New NH.No. 181) to a total length of 18.80 km at a cost of Rs. 30.97 Crore
- Widening at selected stretches of NH 67 (New NH.No. 181) to a total length of 7.00 km and widening of Minor Bridge at a cost of Rs. 23.81 Crore

The following works are in progress

- Widening & Strengthening at km 36/0-80/0 of length 44 km of NH179A at a cost of Rs. 297.55 Crore
- Widening & Strengthening (Dindigul-Natham section) at selected stretches of NH 383 to a total length of 38.00 km length at a cost of Rs. 240.38 Crore
- Widening to 2 lane with paved shoulder at selected stretches of NH 234 (New NH. No. 75) to a total length of of 49.35 km length at a cost of Rs. 138.06 Crore
- Widening & Strengthening (Natham – Kottampatty section) at km 38/0 – 51/770 of 13.77 km length of NH 383 at a cost of Rs. 63.81 Crore
- Construction of fly over at Km.15/2 of NH 49 Extn at a cost of Rs. 52.04 Crore

6.1.2 Road Safety Works

The MoRT&H, GoI gives impetus to road safety. The works enhancing road safety are being taken-up in the Annual Plan schemes

addressing the issues of geometric improvements, widening of narrow culverts, lane marking, provision of bus bays, signages and boards. The road safety measures are integral to the road project.

The Government of India, Ministry of Road Transport and Highways had identified 748 black spot locations in Tamil Nadu during 2015 to 2018. Of this, 209 no. of black spot locations are on the NH stretches, which are under the maintenance of State NH wing. Of this 25 black spot locations are already rectified and for 24 black spot locations, rectification measures are under progress.

The black spots are proposed for rectification in a phased manner. In 2019-20, the Ministry of Road Transport and Highways has sanctioned the estimates for permanent rectification of 13 Black spot locations at a cost of Rs. 47.69 Crore Additional Proposal for 11 No. of black spot rectification proposals with permanent remedial measures amounting to Rs. 29.30 Crore have also been sanctioned by the Ministry. Further, temporary remedial measures for 48 black spot locations were also

sanctioned at a cost of Rs.4.32 Crore Balance 88 black spot locations will be rectified in phased manner.

6.1.3 Non Plan Works (Periodical Renewal (PR) / Improvements to Riding Quality Surface (IRQP))

Non-Plan works include periodical renewal and enhancing the riding quality of road surface.

Under PR/IRQP in 2019-20, 8 road works of 53.952 km length were sanctioned at a cost of Rs.48.77 Crore and are in progress. Further, additional 5 road works to a length of 44.66 km amounting to Rs.44.50 Cr have been sanctioned by the Ministry.

During 2015-19, improvements / renewal in 637.27 km length of roads have been completed at an expenditure of Rs.367.68 Crore.

In 2019-20, Rs.9.91 Cr expenditure has been incurred upto February under this scheme.

6.2 CENTRALLY SPONSORED SCHEMES

6.2.1 Revamped Central Road Fund Scheme (RCRF)

The works taken up under RCRF scheme includes widening, strengthening of roads and rehabilitation / construction / reconstruction of bridges & culverts of State Highways, Major District roads, Other District roads with the funds provided by Gol from Central Road Fund.

In 2019-20, 147 road works of 1290.64 km length and 15 bridge works, at a total cost of Rs.2517.08 Crore were taken-up as spill-over under this scheme.

Under RCRF scheme, exclusive contemplation has been given to decongest the burgeoning vehicular traffic along NH-45 (New NH. No. 32) (suburbs of Chennai city), Madurai & Coimbatore city by widening and improving the feeder roads and construction of fly-overs. The following works are in progress.

Chennai Sub-urban:

- Widening of Walajabad - Sunguvarchatram - Keelachery road from km 0/0 – 19/6 at a cost of 121.65 Cr
- Widening of Elichur - Palur Road from km 0/0 – 8/6 at a cost of 41.80 Crore
- Widening of Kodampakkam - Sriperumbudur Road from km 13/2 – 28/2 at a cost of 132.00 Crore
- Widening of Chengalpattu - Thiruporur road from 0/0 – 21/8 at a cost of 126.75 Crore
- Widening of Guduvanchery - Kottayur road from 0/0 – 17/6 at a cost of 76.87 Crore

Madurai city:

- Construction of Vaigai River Bank Road of 16.00 km length at a cost of 303.59 Crore
- Four Laning the Old Austinpatti Road from 0/0 – 2/0 at a cost of 21.20 Cr

Coimbatore city:

- Construction of fly over at Ramanthapuram Junction & Sungam Junction at a cost of 253.00 Crore
- Construction of fly over at Goundampalayam Junction at a cost of 66.00 Crore
- Construction of fly over at GN Mills Junction at a cost of 41.88 Crore

During 2015-19, widening, improvements in 1856.37 km length of roads and 5 bridges/ culverts/ protective works have been completed at an expenditure of Rs.1471.31 Crore.

During 2019-20 upto February, 101 works for a length of 823.86 km and 1 bridge work have been completed at an expenditure of Rs.1046.11 Crore and the balance works are in progress.

Budget provision of Rs.928.29 Crore has been made for 2020-21.

6.2.2 Inter State Connectivity Scheme (ISC)

ISC scheme includes the works for enhancing the connectivity of roads between the states with the funds provided by GoI from Central Road Fund.

In 2019-20, 1 spill-over road work to a length of 41.20 km was taken-up at a value of Rs.72.91 Crore and is in progress. In 2019-20, the proposal for 4 road works to a length of 29.25 km costing Rs.96.76 Cr have been sent and it is under the consideration of GoI for sanction of funds.

During the year 2015 to 2019, 133.55 km length was completed at a cost of Rs.130.25 Crore.

In 2019-20, upto February 2020 Rs.10.81 Crore has been incurred under this scheme.

6.3 PRADHANMANTRI GRAM SADAK YOJANA (PMGSY)

As a part of poverty alleviation and also for upgradation of roads GoI has launched PMGSY to provide connectivity to the rural habitations which are not connected. NH wing takes up

upgradation of "Other District Roads" through PMGSY funds.

The GoI provides funds for upgrading "Other District Roads" under this scheme.

During the year 2015-2019, under Pradhan Mantri Gram Sadak Yojana Scheme, 435.120 km length was completed at a cost of Rs.143.38 Crore. The completed roads are under maintenance.

In 2019-20, upto February 2020 Rs.2.69 Crore has been incurred under this scheme.

Budget provision of Rs.2.10 Crore has been made for 2020-21.

6.4 IMPROVEMENT OF NHAI ROADS BY STATE NH WING

6.4.1 Widening of NH-45 between Irumbuliyur and Guduvanchery

In order to address the huge traffic congestion in Chennai sub-urban areas, the work for widening between Irumbuliyur to Vandalur (2.30 km) to 8-lane standards, at a cost of Rs.20.77 Crore has been got approved by the NHAI and the work is nearing completion.

In continuation of the above work, the stretch Vandalur – Guduvanchery (5.3 km) is also taken up for eight laning at a cost of Rs.44.48 Crore. The work is in progress.

6.4.2 New Proposals sent to NHAI

In order to ease the traffic flow, estimate for the work of widening between Guduvanchery to Chettipunniyam Mahindra City (13.30 km) at a cost of Rs.230.68 Crore has been sent to NHAI for approval.

In addition, the work of widening between Maduravoyal to Sriperumpudhur (23.20 km) at a cost of Rs.255.00 Crore is also proposed for taking up improvement works after getting approval from NHAI.

6.5 SETU BHARATAM SCHEME- CONSTRUCTION OF ROAD OVER BRIDGES (ROB)/ROAD UNDER BRIDGES (RUB)

Setu Bharatam Scheme has been launched by MoRT&H, to replace Level Crossings with ROB/RUBs.

Under this scheme, Ministry of Road Transport and Highways has engaged consultant for the preparation of Detailed Project Report for the construction of 6 ROB / RUB in lieu of existing level crossings on National Highways and are nearing completion. After completion of DPR, the work will be taken up in future Annual Plan schemes.

- km 22/2 (Near Checkkanurani) in NH 49 Ext
- km 72/6-7 (Near Theni) in NH 49 Ext
- km 93/4 (Near Bodi) in NH 49 Ext
- km 99/4 (Near Tenkasi Elanchi) in NH 208
- 103/4 (Polur – Mathimangalam) in NH 234
- km 81/6 of (Kannamangalam – Kaniyambadi) in NH 234

6.6 UPGRADATION AS NATIONAL HIGHWAYS

6.6.1 Improvement of newly upgraded State Highways declared as NH

The MoRT&H, GoI has declared the following 7 State Highways of 841 km length as National Highways. Of this, improvement works for the following two roads are taken up by State NH and are in progress.

- Dindigul – Karaikudi road (NH-383)
- Salem – Tirupathur – Vaniambadi road (179A)

Improvement works for the following are entrusted to National Highways Authority of India

- Perambalur- Athur road (NH-136)
- Thoppur - Mettur - Bhavani - Erode road (NH-544H)
- Malur–Hosur-Rayakottai-Dharmapuri-Adhiyamankottai (NH-844)
- Oragadam – Cheyyar - Thiruvannamalai-Harur (NH-179B)

- Kumbakonam – Sirkazhi (NH-136B)

6.6.2 STATE HIGHWAYS DECLARED “IN-PRINCIPLE” AS NH

The following in-principle NH roads have been taken-up for preparation of DPR:

Table 6 (a): List of State Highways declared “In-Principle” as NH

S. No.	Name of State Road	Length in km
1	Thiruvannamalai - Kallakurichi road	65.00
2	Vallioor - Thiruchendur road	70.00
3	Kollegal-Hanur-MM hills-Palar road – Tamil Nadu border extended upto Mettur in Tamil Nadu	30.00
4	Mettupalayam-Bhavani road	98.00
5	Avinashi-Mettupalayam road	38.00
6	Bhavani-Karur road	77.00
7	Palani-Dharapuram Road	31.00
8	Arcot–Tindivanam road	91.00
Total		500.00

Ministry of Road Transport and Highways has agreed to declare the upgradation of 4 roads of length 257.00 km and remaining 4 roads to a length of 243.00 km is under the consideration of GoI. In addition, Ministry has concurred to declare Thanjavur – Kodiakkarai road of length 100.50 km as National Highway, which would be notified by GoI.

6.6.3 ROADS PROPOSED FOR INPRINCIPLE DECLARATION AS NH

Proposal has been sent to the Ministry to declare 16 State roads of length 1032.40 km as “In-Principle” NH roads.

6.7 BUS PORTS

With a view to improve the facilities for the passengers of public transport and augment with modern technological facilities, bus ports have been envisaged as a sub-component of National Corridors Efficiency Program Component of Bharatmala Pariyojana. The bus ports have been proposed at Salem and Madurai.

Of this, the Ministry of Road Transport and Highways have accorded in-principle approval

for construction of bus port at Salem. The draft DPR preparation has been done by National Highways and Infrastructure Development Corporation (NHIDCL), New Delhi. The additional requirements in bus port has been informed to NHIDCL for inclusion in DPR. On finalisation, the Salem bus port work will be implemented.

The proposal for Bus port at Madurai has been sent to NHIDCL for preparation of DPR.

6.8 E-GOVERNANCE

MoRT&H, in its attempt to move towards total e-governance and avoid delay, have developed the following dedicated portals for effective functioning

- BOOMI RASHI portal for LA process of all National Highway projects
- This portal is being utilized for uploading details of LA affected villages, e-verification by Competent Authority for Land Acquisition (CALA) and for notification by the Ministry.

- Project Monitoring Information System (PMIS) e-disha
- A real time project tracking and monitoring system for the effective monitoring of all ongoing projects, key issues and interventions required at all levels.
- Used by Ministry of Road Transport and Highways to conduct monthly/quarterly reviews of active projects across different stages of execution, viz., i) To be awarded ii) Under implementation & iii) Detailed Project Report stage.

6.9 OVERALL EXPENDITURE 2019-20 AND ALLOTMENT FOR 2020-21

An expenditure of Rs.460.35 Crore has been incurred upto February during 2019-20 under Plan head of Ministry of Road Transport and Highways for widening and improvements of existing National Highway roads.

In regard to RCRF scheme and PMGSY, an expenditure of Rs.1048.79 Crore has been incurred during 2019-20 upto February.

The budgetary allocation of Rs.930.39 Crore has been made for Revamped Central Road Fund and Bharat Nirman scheme in 2020-21.

6.10 PROJECTS EXECUTED BY NATIONAL HIGHWAYS AUTHORITY OF INDIA (NHAI)

The National Highways Authority of India was constituted by an Act of Parliament (NHAI Act 1988) and operationalised in the year 1995 and is celebrating the silver jubilee of its operationalization in the year 2020. NHAI is implementing National Highways Development Programme (NHDP) / Bharatmala Pariyojana. Road and bridge infrastructure projects for port connectivity and other special scheme. NHAI programmes specially focus on development, maintenance and management of NHs. Since its inception, 2929 Km of roads have been upgraded to six/four/two-lane with paved shoulder configuration in the State at a cost of Rs.22758 Crore.

The State extends co-operation and assistance to NHAI in all pre-construction activities viz., LA, shifting of utilities, etc.

6.10.1 WORKS UNDER IMPLEMENTATION

During the year 2019-20, 20 projects of six/four/two-lane roads with paved shoulder for a total length of 1101 Km at a cost of Rs.16,068 Crore, are in progress. Out of the projects under implementation, 400 Km has been completed and the remaining works are in various stages of progress.

Balance works in the terminated contracts of Dindigul – Theni – Kumili section of NH 45E & 220, Trichy – Karaikudi section of NH-210 and Tindivanam – Krishnagiri section of NH-66 have been taken up during this Financial year and are in progress.

6.10.2 PROJECTS TO BE AWARDED

- Four laning of Jittandahalli – Dharmapuri Section from ch 61.100 to 94.460 (Package-III of Hosur-Dharmapuri section) of NH 844 at a cost of Rs.980.82 Cr

- Four laning of Thorapalli Agraharam – Jittandahalli Section from ch 23.350 to 60.100 (Package-II of Hosur-Dharmapuri section) of NH 844 at a cost of Rs.1081.66 Cr
- Four Laning of Neraluru – Thorapalli Agraharam section from ch0.000 to 23.350 in the States of Karnataka & Tamil Nadu (Package-I of Hosur-Dharmapuri Section) of NH 844 at a cost of Rs.948.77 Cr
- Four laning of Mamallapuram to Mugaiyur Section from ch 0.000 to 31.000 (Package-I of Mamallapuram - Puducherry section) of NH 332A at a cost of Rs.1008.99 Cr
- Four Laning of Mugaiyur to Marakkanam section from ch 31.000 to 62.000 (Package-II of Mamallapuram - Puducherry section) of NH 332A at a cost of Rs.825.94 Cr

- Four Laning of Viluppuram - Puducherry section of NH 45A at a cost of Rs.998.07 Cr
- Four Laning of Puducherry – Poondiyankuppam section of NH 45A at a cost of Rs.1294.47 Cr
- Four Laning of Poondiyankuppam – Sattanathapuram section of NH 45A at a cost of Rs.2153.90 Cr
- Four Laning of Meensuruti – Chidambaram section of NH 227 at a cost of Rs.633.55 Cr
- Construction of Additional Structures in Kerala/ Tamil Nadu border – Kanniyakumari section of NH-47 and Nagercoil – Kavalkinaru section of NH-47B (New NH. No. 66, 948) at a cost of Rs. 591.16 Crore

6.10.3 PORT CONNECTIVITY SCHEME

A Special Purpose Vehicle (SPV), Chennai Ennore Port Road Company Limited (CEPRCL) with quadruplet agreement between the

partners, the Government of Tamil Nadu, Chennai Port Trust, Ennore Port Limited and NHAI has been formed for implementation of the project.

Total Length of the stretch taken for improvements is 29.138 Kms in four sections, which will ensure connectivity to Chennai Port & Ennore Port. Consequent to substantial completion of the work, collection of user-fee has been commenced by the SPV w.e.f. 20.02.2019 after publication of the Fee Notification by Govt. of Tamil Nadu.

Encroachments within Chennai Port Trust for a length of 330m removed and the balance works have been taken up under separate contract. All efforts are being taken to complete the project.

6.10.4 BHARATMALA PARIYOJANA

Economic Corridors, Inter-corridor and Feeder routes, National Corridors Efficiency Improvement, Border and International Connectivity roads, Coastal and Port Connectivity roads, Greenfield Expressways has been identified for development under

Bharatmala Pariyojana. Preparation of DPR / Feasibility Report for 35 projects for a total length of 2670 Km is in progress under Bharatmala Pariyojana (including the residual works of NHDP taken-up under Bharatmala Pariyojana). These projects will be taken-up for implementation on completion of DPR/LA process and other pre-construction activities in a phased manner.

6.10.5 LAND ACQUISITION

For the implementation of Projects under NHAI, land acquisition is being carried out under the provisions of the National Highways Act 1956. For acquisition of land for NHAI projects, exclusive CALA in the cadre of District Revenue Officer (DRO) along with supporting Special Land Acquisition units (SLAUs) are appointed, the cost of which is borne by NHAI.

6.10.6 ELIMINATION OF ACCIDENT BLACK SPOTS

As per the accident data for the year 2011-14, MoRT&H has identified 78 black-spots in the NH stretches falling under NHAI in the State. As an immediate step to improve those black spots,

temporary measures, viz. erection of sign / cautionary boards, provision of rumble strips, blinkers etc. have been completed. Permanent measures, viz. construction of Flyovers, Underpasses, Service Road, Foot Over Bridges, junction improvements, including lighting facilities, etc., are completed in 16 locations and are under implementation in remaining locations.

Now, based on the accident data for the period 2015-2018, 454 Black Spots have been identified on the NH stretches falling under NHAI in the State. Detailed study for finalizing the type of rectification is to be carried out on these locations. In the meantime, Temporary Mitigation measures are being provided.

6.10.7 HIGHWAY OPERATION UNIT (HOU)

NHAI has established Highway Operation Units to focus on Operation of roads and IT-enabled monitoring mechanism such as Managing tollplaza, Developing World class ay-side amenities viz., Highway Village, Highway Nest & Highway Nest (Mini), Incident

management services such as Patrol Vehicle, Ambulances & Crane Services, Highway Traffic management system & Mobile Apps and Highway Asset Management.

6.10.8 IMPLEMENTATION OF 100% ETC AT THE TOLL PLAZAS

In compliance to the directions of the Ministry of Road Transport and Highways, 100% user-fee collection through FASTag (Electronic Toll Collection (ETC)) has been implemented at all 48 Toll Plazas on National Highways in the State. All 428 lanes in all 48 Plazas are ETC enabled for seamless travel. Free Tags are also being issued to promote people switch to ETC and increase ETC usage.

The State Government is extending all cooperation and assistance in implementation of the 100% ETC toll collection by NHAI.

6.10.9 HANDING OVER OF THE NH STRETCHES DEVELOPED BY STATE NH WING TO NHAI FOR COLLECTION OF USER-FEE

311.542 Kms length Cuddalore - Salem section of NH 532, Avinashi - AvinashiPalayam section of NH 381, Vellore - Viluppuram section of NH 234, Perambalur - Thanjavur section of NH 226 E, were developed by the State NH Wing with the funds provided by MoRT&H which are being transferred to NHAI for further maintenance and collection of user-fee.



Junction improvements @km 90/4 of Dindigul – Bengaluru Road (NH 209)



Road safety measures undertaken at Mathampalayam Blackspot

7. NABARD AND RURAL ROADS WING

Nabard And Rural Roads Wing is headed by a Chief Engineer with 4 Circles and 14 Divisions. It is entrusted with the works of

- Construction of River Bridges with loan assistance from National Bank for Agriculture and Rural Development (NABARD),
- Upgradation of Panchayat Union roads, Panchayat roads to Other District Roads (ODR) standard under State fund,
- Construction of Railway over Bridges, Railway under Bridges under Railway Works Programme and
- Land acquisition for the formation of Bypasses under State fund.

During the year 1995, NABARD has created Rural Infrastructure Development Fund (RIDF) for improving the basic amenities and infrastructure facilities like Water Supply,

Irrigation, School Buildings, Road Connectivity, Bridge construction etc., all over the country, for the upliftment of social and economical status of people in rural areas. Since then, every year NABARD is funding Highways Department to construct Bridges.

Further, based on the State Planning Commission's recommendation, the Rural Development and Panchayat Raj Department identified and accorded Government order to hand over 2596 Panchayat Union roads to a length of 7964 km to the Highways Department for upgradation to Other District Road standard.

From 2017-18 onwards, upgradation of Panchayat Union Roads, Panchayat roads to ODR standard are taken up for execution by this wing in a phased manner under State Fund.

7.1 STATE FUNDED SCHEMES

7.1.1 UPGRADATION OF PANCHAYAT UNION ROADS , PANCHAYAT ROADS

For upgradation of Panchayat Union Roads, Panchayat Roads, spillover works of 552 roads to a length of 1635 km & new works of 713

roads to a length of 1904.21 km at a cost of Rs.2276.11 Crore have been taken up for execution during 2019-20.

During 2017 to 2019, 1322.39 km length of road works have been completed at an expenditure of Rs.551.26 Crore.

During 2019-20 upto February, 1455 km length of road works have been completed at an expenditure of Rs.782.35 Crore.

Budgetary outlay of Rs.1050.00 Crore has been allocated for the year 2020-21.

7.1.2 LAND ACQUISITION FOR BYPASSES

Administrative sanction has been accorded for land acquisition for the formation of 11 Bypasses in major towns, which are in progress. For Palladam and Koothanallur Bypasses, administrative sanction have been accorded for preparation of DPR. For Palladam Bypass, DPR has been prepared and DPR is in progress for Koothanallur Bypass.

In 2019-20 upto February, an expenditure of Rs.12.74 lakhs has been incurred.

Budget allotment of Rs.105.50 Crore has been provided for the year 2020-21.

7.2 NABARD LOAN ASSISTANCE SCHEMES

7.2.1 CONSTRUCTION OF RIVER BRIDGES IN GOVERNMENT AND PANCHAYAT UNION ROADS

Under this scheme 217 bridges at a cost of Rs.582.18 Crore have been taken up as spill over works. Of the above, 90 bridges were completed, benefiting 27 districts and the remaining 127 works are in various stages.

During 2015 to 2019, 261 bridges / culverts have been completed at an expenditure of Rs.710.73 Crore.

During 2019-20 upto February, 90 bridges, culverts have been completed at an expenditure of Rs.209.25 Crore.

Budget allotment of Rs.323.01 Crore has been provided for the year 2020-21.

7.2.2 IMPROVEMENTS TO RURAL ROADS

Under this scheme, spill over work of construction of Anakaputhur - Tharappakkam Bridge work at a cost of Rs.7.94 Crore in Panchayat Union Road has been taken up for execution. For this work, out of 11 decks, 9 decks were already completed and for the balance work, Indian Air Force land is involved for which the enter upon permission has been obtained on 04.11.2019. Now the balance work is in progress.

For the year 2020-21, Rs.3.84 Crore has been allocated.

7.3 RAILWAY WORKS PROGRAMME

Under this programme, 13 Railway Over Bridges, 1 Railway Under Bridge and 1 Limited Use Subway at a cost of Rs.263.35 Crore in lieu of the existing level crossings have been taken up for execution. Of these, during this year, 3 ROBs at LC 309 (Dindigul Yard), LC 403 (Virudhunagar) and LC 371 (Thiruparangundram) were completed incurring an expenditure of Rs.46.56 Crore, benefitting Dindigul, Madurai and Virudhunagar districts.

Out of the balance 12 works, 11 works are in progress and one LUS at LC -10 Peelamedu is to be done by Railways.

7.4 OVERALL EXPENDITURE 2019-20 AND ALLOTMENT FOR 2020-21

During 2019-20 upto February, an expenditure of Rs.991.73 Crore was incurred for all Plan Schemes including expenditure towards land acquisition for bypasses. 494 roads to a length of 1455 km at a cost of Rs.782.35 Crore and 90 bridges at a cost of Rs.209.25 Crore were completed. For 2020-21, a total budgetary allocation of Rs.1489.12 Crore has been made.



Tiruchirappalli District - Construction of Bridge connecting Thirumangalam and Agalanganallur across Koozhaiyar river



Thiruvallur District- Construction of a High Level Bridge across Arani river in Ponneri at Chennai – Pulicat road connecting Pudevoyal Pulicat road

8. PROJECTS WING

The Projects wing is headed by a Chief Engineer and functions with 4 Circles and 10 Divisions.

The prime function of the Projects wing is to develop infrastructure and provide connectivity by constructing Road Over Bridges (ROB)/ Road Under Bridges (RUB), High Level Bridges, Elevated Corridors, Grade Separators and Bypasses.

ROBs, RUBs are constructed in co-ordination with the Railways under the Railway Works Programme, at the locations of Road - Rail crossings where the road traffic is hindered due to the frequent closure of Level Crossings.

Further, construction of Major River Bridges across un-bridged water bodies, reconstruction of dilapidated & narrow bridges, formation of Bypasses, Ring roads in major cities and towns and formation of Elevated roads in urban areas are also implemented under State Funded schemes.

8.1 STATE FUNDED SCHEMES

Under State fund, totally 135 works were sanctioned at a total cost of Rs.918.88 Crore. In which 34 works were sanctioned for execution and remaining 101 works were sanctioned for preparation of Detailed Project Report (DPR) and Preliminary works such as Land Acquisition, Shifting of utilities and Preparation of DPR.

In the 34 works sanctioned for execution, High Level Bridge at Pathakotta across Thenpennai River have been completed at a cost of Rs.2.85 Crore, 17 works are in progress for a value of Rs.381.27 Crore and remaining 16 works are in various pre-construction stages such as tender stage, Estimate stage, Design stage for Rs.257.98 Crore.

Out of the 101 Works sanctioned for preparation of Detailed Project Report (DPR) and Preliminary works, for 9 works preliminary works are in progress at a cost of Rs.256.41 Crore and DPR is under preparation for remaining 92 ROBs, RUBs at a cost of Rs.20.37 Crore

From 2015 to 2019, 5 High Level Bridges, 2 ROBs and 1 Grade separator have been completed. The expenditure incurred during the above period is Rs.203.60 Crore.

During 2019-20 till February, 1 High level Bridge have been completed at an expenditure of Rs.22.74 Crore.

Budget allotment of Rs.329.41 Crore has been provided for the year 2020-21.

8.2 RAILWAY WORKS PROGRAMME

Under Railway Works Programme, totally 97 works were sanctioned at a total cost of Rs.1747.31 Crore. In which 47 works were sanctioned for execution and remaining 50 works were sanctioned for preparation of Detailed Project Report (DPR) and Preliminary works.

In the 47 works sanctioned for execution, 4 ROBs have been completed at a cost of Rs.209.94 Crore (Table. 8), 28 works are in progress for a value of Rs.872.59 Crore and remaining 15 works are in various pre-construction stages for Rs.375.84 Crore.

Out of the 50 Works sanctioned for preparation of Detailed Project Report (DPR) and Preliminary works, for 22 ROBs, RUBs Preliminary works are in progress at a cost of Rs.280.38 Crore and DPR is under preparation for remaining 28 ROBs, RUBs at a cost of Rs.8.56 Crore.

Table. 8 : Completed works

S. No.	District	Level Crossing No. & Location	Cost (Rs. in Crore)
1	Trichy	228, Lalgudi	26.60
2		380A, Srirangam	125.00
3	Vellore	123, Vellore Cantonement	21.96
4		126 & 127, Vellore Town	36.38
		Total	209.94

From 2015 to 2019, 21 ROB/RUBs have been completed at an expenditure of Rs.1320.03 Crore.

During 2019-20 till February, 4 ROB/RUBs have been completed at an expenditure of Rs.179.12 Crore.

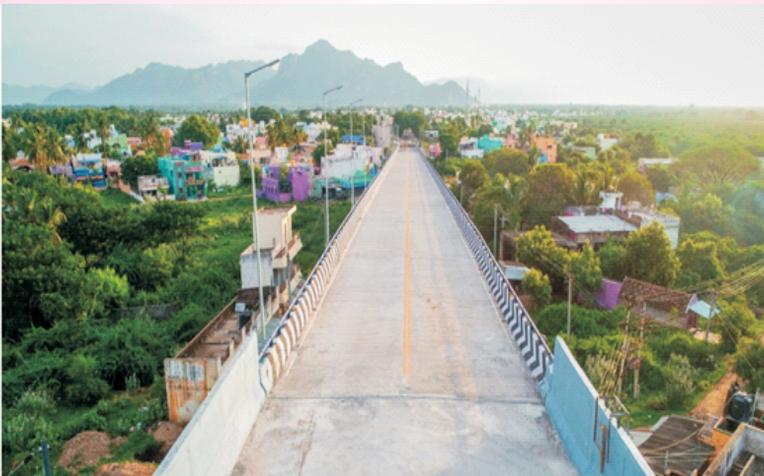
Budget allotment of Rs.885.23 Crore has been provided for the year 2020-21.

8.3 OVERALL EXPENDITURE 2019-20 AND ALLOTMENT FOR 2020-21

In 2019-20, upto February an expenditure of Rs.201.86 Crore was incurred under all the schemes. And budgetary allocation of Rs.1214.64 Crore has been provided for 2020-21.



**Krishnagiri District – Construction of HLB across
Thenpennai river in Pathakotta**



**Vellore District- ROB at existing Level crossing No. 123 in
Ariyur**

9. METRO WING

Metro wing is headed by a Chief Engineer with a Circle and 5 Divisions.

It was formed for implementing the transport infrastructure facilities in and around Chennai Metropolitan Area (CMA) as envisaged in the CTTS, and Second Master Plan developed by Chennai Metropolitan Development Authority (CMDA) through the State budgetary resource under the Chennai Metropolitan Development Plan (CMDP) Scheme.

The road network improvement plans such as Grade-separators, High level bridges, Widening of roads/ bridges, Formation of new link roads, Foot Over Bridges (FOB), Skywalks, etc are being implemented by this wing under CMDP scheme.

Further, Construction/Widening of Road Over Bridges/Road Under Bridges within the CMA, under Railway Works Programme (RWP) on cost sharing basis are taken up by this wing.

The projects are as follows: -

9.1 STATE FUNDED SCHEMES

9.1.1 CHENNAI METROPOLITAN DEVELOPMENT PLAN (CMDP)

9.1.1.1 *Grade Separators*

Construction of Flyovers/ Grade separators is a long term sustainable solution for better management of traffic and transportation.

During 2019-20, Seven Grade separators costing Rs.593.65 Crore were taken up as Spill over works.Out of this, 6 works are under construction and land acquisition is in progress for one work. The details are listed in Table 9(a).

Table No 9(a) : GRADE SEPARATORS

S. No	Name of work	Cost Rs. in Crore
Work in Progress.		
1	Construction of a Grade Separator at the intersection of Sandhai road and Kundrathur road with GST road at Pallavaram	82.66

S. No	Name of work	Cost Rs. in Crore
2	Construction of a Grade Separator at the intersection of Taramani road, Tambaram – Velachery road and Velachery bypass road at Velachery Vijayanagaram	108.00
3	Construction of Grade Separator in Jawaharlal Nehru Salai (Inner Ring Road) at the junction of Kalamman Koil Street and City bus entrance of CMBT at Koyambedu Chennai	93.50
4	Construction of a Grade Separator connecting Medavakkam–Sholinganallur road junction, Medavakkam – Mambakkam road junction and Mount – Medavakkam Road junction in Marmalong Bridge – Irumbuliyur road at Medavakkam	146.41
5	Construction of Grade Separator at the intersection of Mount - Medavakkam road and Pallavaram - Thuraipakkam road near Kilkattalai	64.00

6	Construction of a Grade Separator in the Right Hand side in Kolathur Rettai Eri at the junction of Perambur – Redhills road and Inner Ring Road.	41.08
Work in Land Acquisition Stage		
7	Construction of a Grade Separator at the junction of ECR–Lattice Bridge Road at Thiruvanmiyur (LA Only)	58.00
Total		593.65

Further, Out of 15 Grade Separators, 12 Grade Separators and the Grade Separator at Madhya Kailash are proposed to be taken up in Chennai City Traffic Decongestion Project (CCTDP) with external funding assistance from New Development Bank (NDB) and are in DPR Stage. The remaining three works are as follows:

- Administrative Sanction has been accorded for Rs.219.92 Crore and estimate is under preparation for the work of Grade Separator at Thiruvanmiyur junction.

- A comprehensive study to decongest the traffic in Poonamalle High Road from Anna Arch junction to Koyambedu junction is in progress, as recommended by the Steering Committee for the work of Grade Separator at Nelson Manickam Road (Section -IV)
- For the work of Grade Separator at Pulla Avenue, DPR is completed and LA Impact Assessment is in progress

9.1.1.2 River Bridges

During 2019-20, three river bridges at a cost of Rs.102.04 Crore were taken up as spillover works of which one work is under construction, Land Acquisition is in progress for two works. The stages are listed below in Table 9(b)

Table No.9(b) : River bridges

Sl. No	Name of work	Cost Rs. in Crore
	Work in Progress	
1	Construction of High Level Bridge across buckingham canal at Km 0/6 of Thiruvotriyur – Ponneri – Panchetty road	58.64
	Land Acquisition in Progress	
2	Construction of High Level Bridge across Coovum river at Nolambur road junction in NH 4. (LA only)	36.00
3	Construction of High Level Bridge across Coovum river connecting Km 14/4 of Mount –Poonamallee - Avadi road and Paruthipattu- Thiruverkadu Municipal Road. (LA only)	7.40
	Total	102.04

Further, the work of Construction of HLB across Coovam river at Padikuppam is now proposed to be taken up under CCTDP with external funding assistance from NDB and is in DPR stage.

9.1.1.3 FORMATION OF NEW LINK / WIDENING OF ROAD WORKS

To reduce the travel time, trip length and additional user costs formation of new link is inevitable and to increase the road way capacity widening of roads is necessary.

During 2019-20, Formation of One road work and LA for three road works were taken up as spill-over costing Rs.1094.39 Crore and are in progress. The stages are given below in Table 9(c);

Table No. 9(c) : ROAD WORKS

Sl. No	Name of work	Cost Rs. in Crore
Work in Progress		
1	Formation of Tambaram Eastern by-pass road Km 5/450 – 8/080	36.69
Land Acquisition in Progress		
2	Formation of Tambaram Eastern bypass Road Km 0/0 – 8/4 (LA only)	75.50

3	Forming Six lane of ECR from Km 11/8 - 23/2 from Thiruvanmiyur to Akkarai (LA only)	778.00
4	Forming link road and construction of Bridge across Buckingham canal connecting Rajiv Gandhi Salai and East Coast Road at Neelankarai	204.20
	Total	1094.39

9.1.1.4 PEDESTRIAN INFRASTRUCTURE FACILITIES

Pedestrians are the most vulnerable users at road intersections. Pedestrian crossing improvements provide various levels of protection for pedestrians.

2 spillover pedestrian subway works at the following locations had been taken up.

- Construction of Pedestrian Subway in Anna salai near Chinnamalai A.G Church
- Construction of Pedestrian Subway in GST Road at Guindy near the Junction of MKN Road

During field study of the above works, it was assessed that due to the existing underground utilities, Pedestrian Subway is not feasible. Hence, alternate proposal have been studied and it is proposed to provide Foot Over Bridge at both the locations. The work at MKN road junction is being taken up by Construction and Maintenance wing.

The work of Construction of Foot Over Bridge at Km 9/300 in Inner Ring road near Kendriya Vidhyalaya School is now proposed to be taken up under CCTDP with external funding assistance from NDB and is in DPR stage.

9.1.1.5 SKYWALK

Skywalk is an elevated walkway built over a road, linking two or more locations. It serves as a pertinent solution for safe & secured pedestrian crossing.

To connect the Railway station and bus terminals in Tambaram, construction of Foot Over Bridge and Skywalk with escalator at Km 25/6 of GST Road, Tambaram was taken up as a

spillover work and is in progress for Rs.19.75 Crore.

Further, the work of Providing Skywalk, Escalator and other accessories connecting East Tambaram to West Tambaram is in DPR stage and is now proposed to be taken up under CCTDP with external funding assistance from NDB.

9.1.1.6 WORKS ADMINISTRATIVELY SANCTIONED DURING 2019-20

The following 14 works have been Administratively sanctioned in 2019-20 and are in various stages as in Table 9.d

Table 9(d):Works Sanctioned during 2019-2020

Sl. No	Name of work	Cost Rs. in Crore
Land Alienation in Progress		
1	Formation of New Link Road connecting Greenways Road (DGS Dhinakaran Salai) with Durgabhai Deshmukh road through Tamil Nadu Music College	22.84

Sl. No	Name of work	Cost Rs. in Crore
Estimate Stage		
2	Construction of High Level Bridge across Coovum river connecting Km 14/4 of Mount –Poonamallee - Avadi road and Paruthipattu- Thiruverkadu Municipal Road.	16.784
3	Construction of Grade Separator at the intersection of Lattice Bridge Road and East Coast Road at Thiruvanmiyur junction	219.92
4	Widening the East Coast Road (ECR) to Six lane from Km 14/550 – 15/700 at Palavakkam Village	15.85
5	Formation of Tambaram Eastern Bypass road branching from Km 3/900 – 5/450	52.61
	Total	328.00

Also, two DPR projects and seven DFR projects have been sanctioned for an amount of Rs.222.87 lakhs and are in progress. The details of the projects are as follows.

Preparation of DPR for the works of

- Construction of Grade Separator in Chennai-Thiruvallur High Road at the junction of Ambattur Estate bus depot.
- Construction of Foot Over Bridge in Thirumangalam-Mugappair road near DAV School and Velammal School.

Preparation of DFR for

- Forming bund road along Adyar River Bunds from Thiru.Vi.Ka. Bridge to Maraimalai Adigalar Bridge at Saidapet.
- Decongestion of traffic from Halda Junction to Light House via Sardar Patel Road, Adyar, Greenways Road and Santhome High Road.
- To decongest the traffic in Kodambakkam- Sriperumbudur road (From Vadapalani Junction to Porur)
- To decongest traffic in Velachery High Road (from Chinnamalai to Velachery Bypass junction)

- To decongest the traffic at the junction of Chennai-Thirutani -Renigunda Road and Chennai Bypass road near Ambattur telephone exchange
- To decongest the traffic at Basin Bridge Junction at Km 3/500 of GNT road (Wall Tax road)
- To decongest the traffic at Vyasarpadi junction near Ambedkar Law College

From 2015 to 2019, 6 Grade Separators, 6 River Bridges, 1 ROB and 3.65 km length of road have been completed and an expenditure of Rs.749.78 Crore has been incurred.

9.1.1.7 CHENNAI CITY TRAFFIC DECONGESTION PROJECT (CCTDP)

In order to relieve the traffic congestion at various junctions in Chennai Metropolitan Area (CMA), 18 projects are proposed to be taken up under Chennai City Traffic Decongestion Project (CCTDP) with external funding assistance from New Development Bank (NDB). Initially, sanction for an amount of Rs.1121.57 Crore has been accorded for Land Acquisition. Further, these CCTDP works will be taken up in three tranches, one by one depending upon the quantum of Land acquisition and availability of work front. The project details are listed in

Table 9(e) and all the 18 works are in DPR stage.

Table No. 9(e) : CCTDP Works

Sl. No.	Name of work	LA & RR Cost Rs. in Crore
TRANCHE – I		
1	Construction of Grade Separator at the Junction of Rajiv Gandhi Salai with Sardar Patel road at Madhya Kailash.	46.90
2	Construction of Foot Over Bridge at Km 9/300 in Inner Ring road near Kendriya Vidyala School (No Land Acquisition Involved)	-
3	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	6.00
4.	Widening the existing Road Over Bridge at Km 12/2-13/2 in the Inner Ring Road (Dual five lane) (No Land Acquisition Involved)	-

5	Construction of Grade Separator at the Junction of Km 4/2 of Madhavaram Redhills road and Km 19/100 of Inner Ring Road.	30.51
6	Construction of High Level Bridge across Coovam river at Padikuppam in lieu of existing bed level causeway connecting Padikuppam road to Poonamallee High Road	2.00
TRANCHE – II		
7	Construction of Grade Separator at Km 4/4 of Inner Ring Road and P.T.Rajan Salai Junction.	33.79
8	Construction of Grade Separator at Km 6/5 of Marmalong Bridge – Irumbuliyur road near Kaiveli, Madipakkam	20.00
9	Construction of Grade separator at Marmalong Bridge- Irumbuliyur Road covering Madampakkam road Junction, Tambaram Eastern Bypass and Camp Road Junction near Selaiyur	103.00
10	Construction of Grade Separator at the intersection of ECR and Kalaingar Karunanidhi salai at Akkarai.	122.94

11	Construction of Vehicular Underpass at the junction of Mount Medavakkam road & Southern sector of Inner Ring Road near Madipakkam	36.25
12	Construction of Multi level Grade Separator on Mount-Poonamallee-Avadi road from MIOT Hospital to Mugalivakkam via Ramapuram, L&T and DLF	33.60
TRANCHE -III		
13	Construction of Grade Separator at Km 80/7 in Chennai – Thiruthani – Renigunta Road and Korattur Road.	191.00
14	Providing Four lane Grade Separator at Km. 76/8 of Chennai-Thiruthani-Renigunta Road at the junction of Km.6/4 of Vanagaram – Ambattur Road	136.80
15	Construction of Grade Separator at the Intersection of Kodambakkam - Sriperumbudur road and Poonamallee - Kundrathur - Pallavaram Road, including providing connectivity to ORR via Erikkarai Road at Kundrathur	118.00
16	Construction of Grade Separator along Chennai - Thiruthani - Renigunta Road at the intersection of Mount Poonamallee Avadi Road at Km 68/2 and at the intersection of Heavy Vehicles Factory Road at Km 69/0 at Avadi	70.88

17	Construction of Road Over Bridge at Km 75/6 of Chennai – Thiruttani-Renigunta Road (SHU148) in lieu of existing two lane ROB	13.50
18	Construction of Grade Separator at the intersection of Mount - Poonamallee - Avadi road, Chennai – Chittoor - Bangalore road & Poonamallee - Kundrathur-Pallavaram road at Kattupakkam in Poonamallee.	156.40
	Total	1121.57

9.2 RAILWAY WORKS PROGRAMME (RWP)

9.2.1 RoB/ RUBs WITHIN CMA

During 2019-20, eight ROB/RUB at a cost of Rs.382.35 Crore have been taken up as spill-over works. Out of this, 2 works are in progress and remaining works are in various pre-construction stages. The details are listed in Table 9(f):

Table No. 9(f): ROB/ RUB Works

S. No	Name of work	Cost Rs. in Crore
Work in progress		

S. No	Name of work	Cost Rs. in Crore
1	LC No.4 –Construction of LUS near Korattur Railway station	21.96
2	LC No.32 – Construction of ROB near Perungalathur Railway station	206.08
Work in Tender state		
3	LC No.27 –Construction of Limited Use Subway near Chrompet Radha Nagar	28.99
Work in LA & DPR stage		
4	LC No.14 – Construction of ROB near Veppampattu Railway station (LA)	29.50
5	LC No.4 –Construction of RUB near Tiruvotriyur -Ennore Railway stations (DPR & LA)	28.00
6	LC No.6 – Construction of RUB near Tiruvotriyur - Wimco Nagar Railway stations (DPR)	25.50
7	LC No.16 –Construction of ROB near Nandhiyampakkam – Minjur Railway stations (DPR & LA)	28.32
8	LC No.22 –Construction of RUB near Trisulam (DPR)	14.00
Total		382.35

Further, the work of Construction of ROB at Km 75/6 of Chennai – Thiruttani- Renigunta Road is now proposed to be taken up under

CCTDP with external funding assistance from NDB and is in DPR stage.

9.2.2 WIDENING OF ROBS WITHIN CMA

As the width of the existing ROB in the following locations is in-sufficient for the present day traffic requirements, widening is proposed.

- Widening the existing ROB at Km 20/8 of Mount - Poonamallee - Avadi road at a cost of Rs.11.03 Crore has been sanctioned and is under consideration in Railways for inclusion in Railway Works Programme on cost sharing basis.
- Widening the existing ROB to Dual Five lane at km 12/2-13/2 of Inner Ring Road in DPR stage is included in CCTDP with external funding assistance from NDB.

9.3 OVERALL EXPENDITURE FOR THE YEAR 2019-20 AND ALLOCATION FOR 2020-21

During the financial year 2019-20, an expenditure of Rs.125.52 Crore upto February month has been incurred.

Budget allotment of Rs.657.47 Crore has been allocated for the year 2020-21.



Kilkattalai Grade separator



Medavakkam Grade separator

10. TAMIL NADU ROAD SECTOR PROJECT-II

Tamil Nadu Road Sector Project-II wing is headed by a Project Director and Chief Engineer and functioning with 2 Circles and 8 Divisions.

In continuation to Tamil Nadu Road Sector Project – I, TNRSP-II has been formed for executing important road corridors to cater to high density traffic within the State. This is an Externally Aided Project, funded by the World Bank. An agreement was signed with the World Bank for extending loan assistance of US\$300 Million (Rs: 1800 Crore) with the State share of Rs.3371 Crores at a total cost of Rs.5171 Crore

The Project involves up-gradation and maintenance of high intensity traffic corridors of around 1170.227 Kms. Engineering Procurement and Construction (EPC) - 427.657Km, Public Private Partnership (PPP) -145.100 Km & Output and Performance based Road Contract (OPRC) - 597.470 Km.

TNRSP-II has also taken up Institutional Capacity Enhancement (ICE) of the Highways

Department for Rs.66 Crore and Improving Road Safety activities within the State for Rs.120 Crore.

In order to expedite the implementation of land acquisition, resettlement and rehabilitation, three units under Special District Revenue Officers have been formed and Land Acquisition (LA) progress is monitored through an exclusive software application CMIS (Computerized Monitoring and Information System), by the Monitoring Consultant and Spl. DROs (LA), TNRSP II wing.

Environmental and social impacts due to Project Implementation are given due priorities.

10.1 PROJECT COMPONENTS

Sl.No	Components	Length in Km	Project Cost in Cr
1	Road upgrading under EPC contracts	427.657	2414.28
2	Road upgrading under PPP contracts	145.100	1499.06
3	OPRC	597.470	239.00

4	Consulting Services		132.71
5	Road Safety		120.00
6	Institutional Capacity Enhancement		66.00
7	Miscellaneous services		6.95
8	LA and R&R		693.00
	Total	1170.227	5171.00

The above project components have been executed by adopting newer mode of contracts, viz., OPRC, EPC & PPP.

10.2 ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) BASED CONTRACTS

Under Engineering Procurement Construction contract (EPC), Widening and Strengthening of 427.657 Km stretches of road to two-lane width with paved shoulders, in 10 packages for an amount of Rs.1704.91 Cr have been taken up. Out of 10 packages, 9 packages were completed and presently under 5 years maintenance

period. For Balance one package of EPC 04, tender for balance work has been invited.

10.3 OUTPUT AND PERFORMANCE BASED ROAD CONTRACTS (OPRC):

Package	Name of the work	Length in km	Amount Rs. In Cr	Stage
OPRC-1	Arcot – Tiruvarur corridor	265.300	94.12	Fifth year maintenance is in progress and will be completed in January 2021
OPRC-2	Nagapattinam – Tuticorin corridor	316.193	125.96	
Total		581.493	220.08	

10.4 UPGRADATION AND MAINTENANCE THROUGH PPP UNDER MODIFIED ANNUITY MODE

Package	Name of the work	Length in km	Estimated Project Cost Rs in Cr	Stage
PPP-01	Gobi - Erode Road (SH15) km 123/000 to km 153/600	30.600	280.00	Tender under evaluation
PPP-02	Oddanchatram – Dharapuram-Tiruppur Road (SH37) km 37/400 to km 108/400	70.200	713.45	Work is in progress
PPP-03	Tirunelveli – Tenkasi Road (SH-39) km 5/000 to km 50/600	45.640	426.20	Tender under evaluation
Total		146.440	1419.65	

10.5 CONSULTANCY SERVICES:

10.5.1 Funded by World Bank

Three supervision consultancy services have been engaged to supervise the 10 EPC contract packages. The tender for supervision consultancy services for EPC 04 (SC 04) has been initiated. One consultant has been engaged to monitor the two OPRC Contracts. For PPP 02 works which is in progress, an Independent Engineer has been engaged. For other two PPP works, Independent Engineers will be engaged soon.

10.5.2 Funded by TAMIL NADU INFRASTRUCTURE DEVELOPMENT BANK (TNIDB)

Preparation of Detailed Project Reports for a length of 3319 Km at an amount of Rs.132.76 Cr has been sanctioned under TNIDB fund. In the first phase, 1181.635 Km length of roads have been taken up. In this, around 109 Km has been finalized for execution under World Bank additional loan assistance.

10.6 WORKS - ADDITIONAL FUNDING BY WORLD BANK

109 km length of State Highways and Major District Roads selected for execution under Additional Financing by World Bank are given below:

SI.No.	Description	Road Length in Km
Phase I		
1	Four laning and strengthening of Omalur- Mecheri (SH222) (km. 0/000 – km. 14/600)	14.60
2	Strengthening and widening of Malliyakarai - Attur road (SH30) (km.81/0 54 – km. 89/250)	8.196
3	Four laning and strengthening of Chithode to Erode road (SH-15) (km. 153/600 – km. 161/620)	8.02
Sub Total		30.816

Sl.No.	Description	Road Length in Km
Phase II		
1	Four laning and strengthening of Kanchipuram- Vandavasi to Cheyyar SEZ (SH116) (km.2/915– km.14/112) including Vandavasi Bypass (km 36/457 km 39/829), connecting SH 116 & SH 05 (Two lane with paved shoulder) and four laning of Kanchipuram – Thiruvathipuram road km 0/0 – 2/600 (SH5A)	17.169
2	Erode – Chennimalai (MDR-108) (km. 0/00 – km. 24/000)	24.00
3	Ariyalur – Reddipalayam (SH139) (km. 0/000 – km. 12/300)	12.30
4	Arcot – Arni road (SH4) (km 0/000-km 24/600)	24.60
Sub Total		78.069
Total		108.885

10.7 LAND ACQUISITION (LA), REHABILITATION AND RESETTLEMENT (R&R) ACTIVITIES

Government has approved the Resettlement Policy Framework (RPF) 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's Operational guidelines for compensating land acquisition for the Project Affected People. Also the RPF covers the principles and objectives of resettlement, process for conducting census survey of Project Affected Persons (PAP), socio-economic surveys and preparation of Entitlement Matrix (EM). The Entitlement Matrix is approved by the Government and is available in the public domain. Based on this Entitlement Matrix, Resettlement Action Plan (RAP) is prepared individually for the Project roads. After the approval of RAP by the World Bank, the compensation is arrived and disbursed to these PAPs.

10.8 INSTITUTIONAL CAPACITY ENHANCEMENT AND ROAD SAFETY (ICERS)

10.8.1 Institutional Capacity Enhancement (ICE)

1. M&E information System (Road User Satisfaction Survey, Feedback system etc.,)
2. Process improvements and Organizational Restructuring.
3. IT-ICT based systems (upgradation of e-pathai).
4. Human Resources Development (Training Need Assessment).

10.8.1.1 ICE Component

- Training of 250 Highway Engineers through Anna Institute of Management completed.
- Road User Satisfaction Survey (RUSS) conducted for TNRSP II roads and completed.
- Updation of Highway Manuals are taken up and will be completed in June 2020.

- Training Need Assessment study is in progress for implementation of training through HRS Training Center.
- Revamping of Tamil Nadu Highways Act, 2001 and Rules 2003, is in progress through the Consultant.
- Procurement and installation of Computers for the part of Department was taken up and completed through Electronics Corporation of Tamil Nadu (ELCOT).
- IT-ICT Management Consultant has been engaged for developing the Work Management System for the proposed e-pathai 2.0.
- Consultant has assessed the hardware requirement for the Highways Department to suit the present need and will be procured shortly.

10.8.2 Road Safety (RS)

1. State level- Strategic Advisory Assistance.
2. State level- Operational Assistance.
3. District level Initiative- Kancheepuram.
4. Second District level Initiative-Tiruvannamalai.
5. Corridor level Interventions.

10.8.2.1 Road Safety Component

- Road Safety Management Consultant has been appointed to support Road Safety Management Cell in implementing various road safety activities.
- Road Safety Audit has been taken up and completed for about 1487km in Kancheepuram and Tiruvannamalai District. International Road Assessment Programme (iRAP) survey for 528km completed and 95.60 km (Kancheepuram 30.80 km & Tiruvannamalai 64.80 km) demo corridor project selected in these districts for which field investigations are in progress.
- Procurement and installation of Automatic Speed Enforcement System and Advanced Traffic Management System in East Coast Road has been taken up and procurement in second call is at advanced stage.
- Procurement of equipment for Trauma Care Centre at Kancheepuram Head Quarters hospital has been taken up

and procurement is at completion stage.

- Training of Healthcare, First responder training has been completed benefiting 3457 persons and training of Doctors & Nurses in Advance Trauma Life Support being conducted.
- Consultancy services for Data analytics of 108 Ambulance for dynamic allocation to improve emergency care is being procured.
- Procurement of equipment for Trauma Care centre at Tiruvannmalai Medical College Hospital has been taken up and procurement process initiated.
- Creating road safety awareness among school children in Kancheepuram District has been taken up and the consultant has commenced the services and in progress.
- Procurement of enforcement related vehicle & equipment to Police Department has been initiated.
- Training in Road Safety is being given for various stakeholders namely, Transport officials, Police, officials, Highways Engineers through Cental

Road Research Institute (CRRl), Institute of Road Traffic Education (IRTE) and Anna Institute of Management including senior level officers.

- 200 Highway Engineers will be trained in Road Safety Audit and iRAP survey during this year. 25 Transport officers and 150 Police officers will be trained in Road Safety during this year.

10.9 OVERALL EXPENDITURE 2019-20 AND ALLOCATION FOR 2020-2021

The total budget allotment for the year 2019-2020 was Rs.459.74 Crore and the expenditure incurred of Rs.307.815 Crore have been incurred upto February for implementation of the above project.

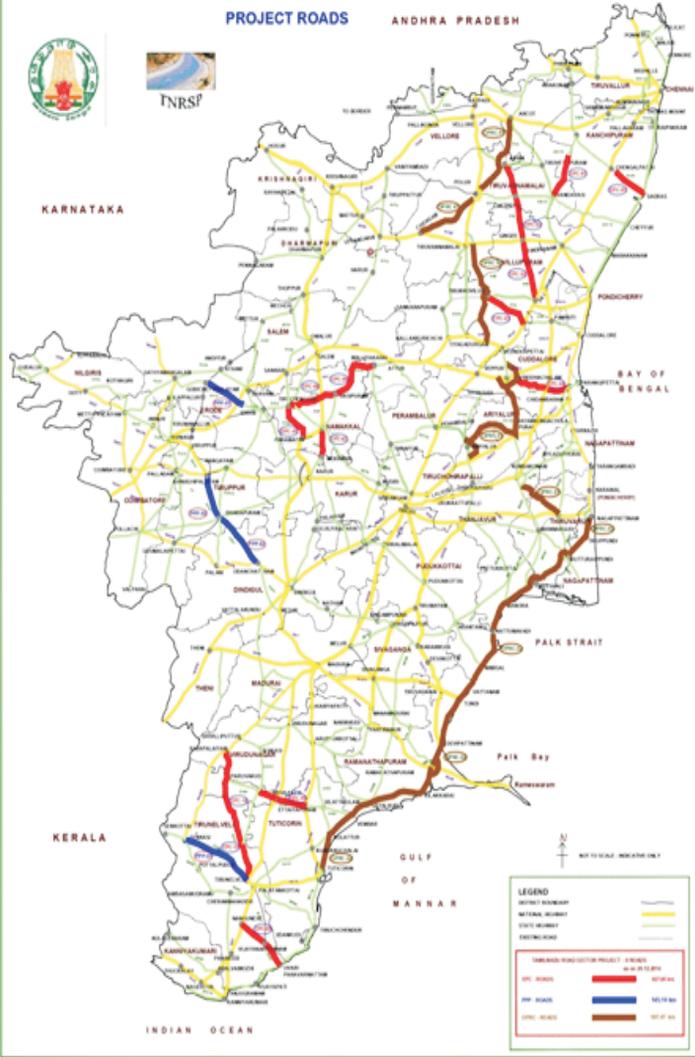
An Overall expenditure incurred in TNRSP II up to February is Rs.2705.269 Crores.

For the financial year of 2020-2021 a total budgetary allocation of Rs.614.06 Cr has been made.

TAMIL NADU ROAD SECTOR PROJECT - II

PROJECT ROADS

ANDHRA PRADESH



LEGEND	
INTERNATIONAL HIGHWAY	Yellow line
NATIONAL HIGHWAY	Orange line
STATE HIGHWAY	Yellow line
DISTRICT ROAD	Yellow line
TAMIL NADU ROAD SECTOR PROJECT - II ROAD	Red line
- 40% ROAD	Red line
- 50% ROAD	Red line
- 60% ROAD	Red line
- 70% ROAD	Red line
- 80% ROAD	Red line
- 90% ROAD	Red line
- 100% ROAD	Red line
- 10% ROAD	Blue line
- 20% ROAD	Blue line
- 30% ROAD	Blue line
- 40% ROAD	Blue line
- 50% ROAD	Blue line
- 60% ROAD	Blue line
- 70% ROAD	Blue line
- 80% ROAD	Blue line
- 90% ROAD	Blue line
- 100% ROAD	Blue line
- 10% ROAD	Brown line
- 20% ROAD	Brown line
- 30% ROAD	Brown line
- 40% ROAD	Brown line
- 50% ROAD	Brown line
- 60% ROAD	Brown line
- 70% ROAD	Brown line
- 80% ROAD	Brown line
- 90% ROAD	Brown line
- 100% ROAD	Brown line

11. CHENNAI KANYAKUMARI INDUSTRIAL CORRIDOR PROJECT (CKICP)

The Chennai Kanyakumari Industrial Corridor is headed by Project Director and Chief Engineer and functioning with 2 Circles, 6 Divisions and 5 Special District Revenue Officers.

Highways Department is executing, various road infrastructure projects for the economic and industrial development of the State. The projects include State funded, centrally sponsored and externally aided projects. Based on the overall development of Country and States, the Department of Industrial Policy and Promotion, Government of India, have proposed to develop five Industrial Corridors. East Coast Economic Corridor (ECEC) is one of the 5 corridors announced by the Government of India, which is proposed to be developed with loan assistance from Asian Development Bank.

Comprehensive development plan for Chennai Kanyakumari Industrial Corridor Project prepared by Asian Development Bank, addresses the development plan for industries. Besides

development of industrial infrastructure, the plan provides for optimizing transports and logistics through improvements in ports, roads, railways, coastal shipping and airport sectors. Enhancing the production through improved urban and water supply, energy and skill development are also planned. 8047 Km of road network comprising of 4318 km National Highways and 3729 km State Highways covering 13 Coastal Districts and 11 Interior Districts, have been identified in the CKIC influence zone under the road sector. These roads are planned to be developed in six phases.

The CKIC Project has been designed to focus on increasing the share of manufacturing sector, promoting balanced regional growth, and developing the southern districts. In order to develop the road infrastructure in this CKIC influence area, improvements to 15 roads have been taken up. It has been planned to connect 12 National Highways viz. NH 32 (Chennai - Thoothukudi), NH 132 (Thindivanam - Villupuram), NH 38 (Vellore – Villupuram - Thiruvannamalai - Trichirappalli - Madurai – Aruppukkottai–Thoothukudi), NH 138

(Thoothukudi - Tirunelveli), NH 83 (Dindigul - Bangalore), NH 36 (Vikravandi – Kumbakonam – Thanjavur – Pudukottai - Sivagangai - Manamadurai), NH 136 (Thanjavur – Thiruvaiyaru – Perambalur - Athoor), NH 536 (Tirumayam – Ramanadhapuram), NH 44 (Bangalore – Krishnagiri – Dharmapuri – Salem – Namakkal – Karur – Dindugal – Madurai – Thirunelveli - Kanyakumari), NH 544 (Salem-Coimbatore-Cochin), NH 48 (Chennai – Krishnagiri), NH 716 (Chennai – Thirupathi – Renigunta – TN/AP border) and various State Highways spreading over 20 districts.

11.1 ROADS TO BE IMPROVED

Under first phase, it is proposed to take up the following 15 Project roads.

S. No.	Project Road	Total Length (km)	Project Cost Crore	LA cost Crore	Improvement Proposed
1	Cheythur (ECR) to Vandavasi - Polur road (SH115)	110.00	529.96	64.70	2 lane+ PS

S. No.	Project Road	Total Length (km)	Project Cost Crore	LA cost Crore	Improvement Proposed
2	Chengalpet to Kancheepuram Road (30/0 - 63/450) (SH 58) including Military Road km 0/0 – 6/310	39.75	419.95	68.85	4 lane
3	Chengalpattu – Kancheepuram -Tiruthani Road (66/940-108/720) (SH 58)	47.31	389.95	67.00	2 lane+ PS
4	Tiruchendur to Ambasamudram via Palayamkottai (SH 40)	74.90	407.64	31.09	2 lane+ PS
5	Melur to Karakikudi via Tirupattur, Kundrakudi (SH 191 & SH 191A)	46.90	213.71	16.34	2 lane+ PS

S. No.	Project Road	Total Length (km)	Project Cost Crore	LA cost Crore	Improvement Proposed
6	Thanjavur to Mannargudi (SH 63)	27.59	143.63	10.95	2 lane+ PS
7	Kumbakonam to Mannargudi (SH 66)	34.26	177.90	13.56	2 lane+ PS
8	Kumbakonam to Sirkazhi (SH 64)	38.07	307.49	145.22	2 lane+ PS / 4 lane
9	Mayiladuthurai to Thiruvarur (SH 23)	31.28	199.04	137.16	2 lane+ PS
10	Thuraiyur to Perambalur (SH 142)	31.49	107.41	25.00	2 lane+ PS
11	Virudhachalam to Ulundurpettai (SH 69)	20.88	114.92	21.00	2 lane+ PS
12	Cuddalore to Madapattu Junction (SH 9)	40.60	379.16	284.16	2 lane+ PS

S. No.	Project Road	Total Length (km)	Project Cost Crore	LA cost Crore	Improvement Proposed
13	Mohanur – Namakkal – Senthamangalam-Rasipuram Road (SH 95)	46.44	249.32	162.42	2 lane+ PS
14	Tiruchengode to Erode (SH 79)	10.27	205.59	115.12	4 lane
15	Omalur to Tiruchengode via Sankagiri including Tiruchengode Bypass (SH 86)	54.80	539.17	411.52	4 lane / 2 lane+ PS
	TOTAL	654.54	4384.84	1574.09	

The total project cost is Rs.6448 Crore which includes cost of Land Acquisition and Rehabilitation and Resettlement cost to the tune of Rs.1574 Crore. Of the total Construction cost, 484 million US dollars (Rs.3484 Crore) will be supported by Asian Development Bank loan assistance and the remaining cost including land

acquisition cost would be borne by the State Government. The Government has accorded administrative sanction for the project in the month of March 2018 and land acquisition works have commenced.

11.2 PROJECT IMPLEMENTATION

A Project Implementation Unit (PIU), headed by the Project Director, has been created for execution of the project. An exclusive Engineering Wing consisting of 297 Staffs, headed by a Chief Engineer and assisted by two Superintending Engineers, and a Land Acquisition unit with 338 Staff including 5 Special District Revenue Officers, to expedite the effective execution of the project, have been formed. The Unit started functioning from August, 2018.

The Detailed Project Reports for 15 roads will be submitted to ADB for scrutiny by March 2020. As per the ADB guidelines, e-procurement procedure to be followed for the Road Upgradation works under EPC mode of contract. The loan agreement with ADB is planned to be executed in the third quarter of 2020.

Two consulting firms have been engaged towards the implementation of the LARR activities as per ADB norms and guidelines. They are assigned with the responsibility to assist in successful implementation of objectives of the Resettlement Plan. The consultants play a major role in conducting community awareness program with respect to Road safety, Health & Hygiene in worksite and labour camps, etc.

As per the ADB Safeguard Policy Statement (SPS) 2009, a Monitoring consultant has been engaged to monitor and assess the progress of LARR implementation unit. The consultant is to ascertain the delivery of compensation and entitlements to PAPs in accordance with the provisions and procedures of RFCTLARR Act 2013 and to evaluate the outcomes of Resettlement Plan pertaining to the Project roads. The consultant is to ensure effective implementation of Resettlement Plan.

Construction Supervision Consultancy service is to be engaged for effective supervision of the project as per ADB norms. The 15 project roads have been grouped into 5 packages for this purpose and the necessary clearances have been

obtained from the ADB for the provision of 5 Construction Supervision Consultancy service. The shortlisting of consultants has been completed and the RFPs are being issued to these Construction Supervision Consultants.

Land Acquisition works pertaining to the project roads has been commenced. Rehabilitation and Resettlement to the Project Affected Persons (PAP), as per the social safeguards norms of the ADB is being implemented for this project 462.94 Ha of private land have to be acquired from 321 villages consisting of 381 land parts. The land acquisition by private negotiation procedure is also adopted for providing compensation to the Project Affected Persons (PAP) to speed up the process of LA.

Expenditure for 2019-20 and Allocation for 2020-21

During 2019-20 upto February, an expenditure of Rs.13.84 Crore was incurred.

A budget allocation of Rs.1,000 Crore has been made for the year 2020-21.

11.3 CHENNAI PERIPHERAL RING ROAD

Vision 2023 document envisaged the Construction of Chennai Peripheral Ring Road (CPRR), linking the principal radial arterials, viz. NH 16 Chennai to Kolkatta Road , NH 716 Chennai – Tirupathi Road, NH 48 Chennai-Bengaluru Road and NH 32 Chennai- Trichy Road. The key objective of CPRR is to provide efficient commercial transportation , Port connectivity and enhance operational efficiency.

The Chennai Peripheral Ring Road starts from Ennore and ends at Poonjeri Junction near Mamallapuram having a total length of 133.38 km which is split into 5 Sections and proposed to be executed at a cost around Rs.12,301 Crore.

Section	Starting from	End at	Length (km)
I	Ennore Port	Thatchur at NH 16 Chennai to Kolkatta	25.11

		Road	
II	Thatchur on NH-16 Chennai to Kolkatta Road	Start of Thiruvallur Bypass at NH 716 Chennai – Tirupathi Road	26.40
III	Start of Thiruvallur Bypass at NH-716 Chennai – Tirupathi Road	Sriperumpudur at NH 48 Chennai-Bengaluru Road	30.60
IV	Sriperumpudur at NH -48 Chennai-Bangalore Road	Singaperumalkoil at NH 32 Chennai-Trichy Road	23.80
V	Singaperumalkoil at NH- 32 Chennai- Trichy Road	Poonjeri Junction near Mamallapuram at East Coast Road (ECR)	27.47

The alignment comprises 97.47 Km of new formation and 35.91 Km of improvements to the existing roads. For effective execution of the project, sanction has been accorded for special

Land Acquisition unit with 101 posts headed by the Special District Revenue Officer and supported by Resettlement Officer (RSO), Tahsildars and sub-staffs.

Execution of Section-I (Ennore Port-Thatchur) of the project is entrusted to Tamil Nadu Road Development Company. At present Land Acquisition works are in progress to acquire 245.25 hectares at a cost of Rs.951 Crore. Sanction has been accorded for a sum of Rs.2,673.42 Crore for the execution of Section-I. Loan Agreement has been signed with JICA in January 2019 for 40,074 Million Japanese Yen (Rs.2,473.70 Crore). The Supervision Consultants have been appointed and the work is scheduled to begin shortly.

For Sections II, III and V of Chennai Peripheral Ring Road, administrative sanction has been accorded for land acquisition of 558.53 hectares at a cost of Rs.2,603.32 Crore and the process of Land Acquisition has been taken up by the Tamil Nadu Road Infrastructure Development Corporation. For the execution of Section 2 and 3 the AIIB (Asian Infrastructure Investment Bank) and OFID (OPEC Fund for

International Development) have been approached and the Department of Economic Affairs, New Delhi has approved the proposal. The Loan Agreement is likely to be signed for an amount of 478.07 Million USD (Rs.3346.49 Crore). The Construction work is scheduled to begin in 2020-21.

Allocation for 2020-21

A budget allocation of Rs.1,200 Crore has been made for the year 2020-21.

12. HIGHWAYS RESEARCH STATION

Highways Research Station wing is headed by the Director, and supported by One Joint Director, 4 Deputy Directors and 8 Divisional Engineers.

Highways Research Station was established in 1957. Since then, HRS as a pioneer research station in Asia, functioning under Highways Department. The primary objective of HRS is improving roads to enable all categories of traffic to move safely, expeditiously, economically and comfortably. Continuous study and research on materials used for road construction, technical support and expert guidance in field related issues, suggestions for remedial measures for accident reduction, quality control at all stages of the work, training and capacity building are other objectives.

12.1 QUALITY CONTROL

To monitor the Quality of the work, effective quality control is being exercised at every stage of work, both on the materials as well as

methodology of construction. This will result in considerable savings of time and financial resources. Circle level and Division level labs are established to conduct the necessary quality control tests.

12.2 LABORATORIES

Highways Research Station is functioning with four Laboratories viz., Bitumen, Soil, Concrete and Traffic at Chennai and eight regional laboratories at Villupuram, Trichy, Thanjavur, Madurai, Tirunelveli, Salem, Tiruppur and Coimbatore.

Various tests such as Axle load test to assess the Vehicle Damage Factor (VDF), Benkelman Beam Deflection (BBD) test to evaluate the structural condition of pavement, roughness test to evaluate functional condition of pavement, pile load test for bridges to ascertain load carrying capacity, non-destructive test on concrete members, test on steel, cement and soil are being carried out.

Design mix for concrete and bituminous works are being evolved for construction of roads and bridges.

To reduce the road accidents, road junctions are studied for improvement by analyzing the traffic flow at the junction, and engineering measures are given for elimination of black spot.

During the year 2019-20, 32066 tests have been conducted and earned revenue of Rs.25.65 Crores.

12.3 RESEARCH

Research is being carried out on new materials & Latest techniques and the research reports are shared with Indian Road Congress (IRC) and being implemented in field.

12.3.1 RESEARCH WORKS UNDER TAMIL NADU INNOVATION INITIATIVES (TANII) SCHEME

In HRS, the research Projects namely "Study on performance of jute fibre reinforced cold bituminous mixes" and "Study on the effectiveness of curing compounds on concrete pavement" have been taken up during the year

2019-20, funded by State Planning Commission through TANII scheme.

Already six research projects have been taken up under TANII scheme in which laboratory study has been completed for 3 projects and study under progress for 3 works. The findings of the study will be implemented at field.

12.3.2 RESEARCH WORKS UNDER PART II - SCHEME

Based on the findings of the research projects done under part II scheme, copper slag has been used as replacement of sand by 30% in the construction of CC pavement in the work of km 3/2 - 3/5 of Thiruneermalai road (ODR) and it is functioning well.

Likewise, Glass Geogrid has been laid in the road for arresting the fatigue cracks in the bituminous layer in km 24/7 – 25/0 of Kosasthalaiyar Bridge – Puthur Road (SH51) and it is effective.

12.4 TRAINING

Training programme for departmental engineers upto the rank of Superintending Engineers and ministerial staff are conducted every year to update the knowledge and best practices.

Following training programmes were conducted during the year 2019–2020

S.NO	Participant's Cadre	Duration	No. of participants
1	Quality Control Training -1 st Batch		
	Assistant Engineers	5 Days	27
2	Quality Control Training – 2 nd Batch		
	Assitant Divisional Engineers & Assistant Engineers	5 Days	25
3	Road Safety Audit - 1 st Batch		
	Divisional Engineers, Assitant	3 Days	40

S.NO	Participant's Cadre	Duration	No. of participants
	Divisional Engineers & Assistant Engineers		
4	Road Safety Audit – 2 nd Batch		
	Assitant Divisional Engineers & Assistant Engineers	3 Days	43
5	Road Safety Audit – 3 rd Batch		
	Assitant Divisional Engineers & Assistant Engineers	3 Days	31

Further, the students of engineering colleges/universities undergo in-plant training at the laboratories of HRS.

12.5 TRAINING CENTRE

Exclusive building for training center has been constructed with an area of 2154.95 Sq.m in ground floor and 2094.51 Sq.m in first floor in the HRS campus. It comprises with 4 class

rooms, Library, Auditorium, Mini conference hall and group discussion room besides office rooms.

In addition, separate hostel building has been constructed with 40 rooms, kitchen, dining hall and multipurpose hall.

Infrastructure facilities to the Training center and Hostel building are being carried out for Rs.350.00 lakhs and nearing completion.

12.6 NEWS LETTER

HRS brings out News Letter every quarter which is a communication tool amongst the Highways Department for dissemination of information. So far, 18 issues have been brought out.

12.7 CO-ORDINATION WITH IRC

Director, Highways Research Station is council member in IRC New Delhi, which is the Apex body of Highway Engineers which works in close collaboration with Ministry of Road Transport and Highways. Apart from this, the Director, HRS is a member of Road Maintenance and Asset Management committee (H-6),

Human Resource Development committee (G-2), Identification, Monitoring & Research Application (IMRA) committee and Accreditation of new materials & Techniques committee of IRC.

Latest publications of IRC codes are available at the "IRC sales extension counter" which is functioning in HRS since 2013.

There is a continuous participation of the engineers from HRS in the annual session of IRC for presenting technical papers. In the recent 80th Annual session held at Patna in Bihar state, Engineers from HRS have participated and presented 3 technical papers.

12.8 MEMORANDUM OF UNDERSTANDING (MOU) WITH IIT-MADRAS

As a part of MoU with IIT-Madras, Training on "Road Safety Audit" are being conducted at HRS. During the year 2019-20, 114 Engineers of Highways Department, have been trained.

12.9 FIVE YEAR ACHIEVEMENTS

During the years 2015 to 2020, 108420 tests have been conducted and earned revenue of Rs.92.23 Crores.

During the years 2015 to 2020, 19 training programmes with 730 participants from Highways department and 7 training programmes with 148 participants from Rural Development & Panchayat Raj Department have been conducted. Orientation programme for newly recruited engineers have been conducted during the year 2016 and 2018 for 204 and 161 Engineers respectively. Besides, 305 engineers have been given training on Road Safety Audit.

During the years 2015 to 2020, training for 524 students from various engineering colleges were given and earned revenue of Rs.4.39 Lakhs.



Orientation Programme to the Newly Recruited Assistant Engineers



Quality Control Inspection of Road works by The Director, Highways Research Station

13. PLANNING, DESIGNS AND INVESTIGATION

Planning, Designs and Investigation wing functions under the head of Chief Engineer with one Joint Chief Engineer and four design divisions at Chennai and has five investigation Divisions at Chennai, Madurai, Tirunelveli, Salem & Coimbatore.

The role of Planning, Designs and Investigation Wing is to carry out field investigation and preparation of Detailed Project Report for River bridges, Grade Separators, Road Over bridges (ROB) / Road Under Bridges (RUB), proposed and executed by various wings of the Highways Department.

13.1 ACTIVITIES OF THE WING

13.1.1 INVESTIGATION DIVISIONS AND THEIR ACTIVITIES

The Investigation divisions undertake the following field works :

13.1.1.1 FIELD INVESTIGATION AND SUBSOIL EXPLORATION

- Detailed Investigation and collection of field data for bridge works.
- Collection of relevant data from Public Works Department for river bridges and from Railways for ROB / RUB works.
- Subsoil investigation to ascertain the bearing capacity of the subsoil and to decide the foundation of the bridges.

13.1.1.2 PREPARATION OF DETAILED REPORTS AND DRAWINGS

- Preparation of site plan incorporating all the field details.
- Preparation of alignment drawings.
- Preparation of cross sectional, longitudinal sectional drawings along the River/Stream, preparation of General Arrangement Drawing (GAD) and computation of Hydraulic particulars.
- Recommendation of suitable proposal based on field investigation and subsoil exploration.

13.1.2 DESIGN DIVISIONS AND THEIR ACTIVITIES

The activities of design divisions are as follows :

- Preparation of designs, drawings and quantity estimates for River bridges, ROBs, RUBs, Grade separators and other Highway Structures.
- Proof checking and approving the alternative designs furnished by the contractors.
- Proof checking and approving the detailed project reports prepared by the consultants engaged by various wings of the departments.
- Redesigning the bridges and other components, if warranted in accordance with the subsoil conditions /site constraints during execution.
- Scrutinizing and giving the recommendations to facilitate the issue of permit for non standard heavy motor vehicles to ply on bridges.
- Scrutinizing and according approvals for the structural design of bridges to be constructed by other departments.

13.2 WORKS COMPLETED DURING APRIL 2019 TO FEBRUARY 2020

- Preparation of design, drawings and estimate for 38 River bridges, 4 ROBs, 1 RUB and 1 LUS have been completed.
- Revision of design and drawings of 10 River bridges, 6 ROBs, 1 RUB, 3 Grade separators, 1 Flyover and 1 Two-tier flyover have been completed.
- Proof checking of Design and Drawings prepared by consultants for 5 works have been carried out.

Totally 71 works have been completed by this wing during April 2019 to February 2020.

13.3 PROGRAMME OF WORK AS ON DATE

As on date 52 works are in hand at various stages. In addition, the bridge works to be sanctioned during this financial year are also to be taken up for designing.



Villupuram District – Construction of girder at Madapattu ROB



Salem – Construction of Pier at Mulluvadi gate ROB

14. TAMIL NADU ROAD DEVELOPMENT COMPANY LTD

TNRDC is a fully State-owned Joint Venture Company with 50:50 shares of TIDCO and TIDEL park Ltd was formed under the Chairmanship of the Secretary to Government, Highways and Minor Ports Department in 1998. The Company is being administrated by the Directors from stake-holders as well as Independent Directors, registered under Company's Act

The Company engaged in executing major infra projects, technological interventions and other pioneering works.

14.1 PROJECTS IMPLEMENTED

14.1.1 East Coast Road (ECR) Project

East Coast Road, a scenic beauty road along coastal line is from Chennai Akkarai to Koonimedu near Puducherry.

The 113.20 Km long, two lane plus paved shouldered corridor is improved, operated and maintained under PPP mode for a period of 30 years since 2002. The existing toll collection

system is proposed to be upgraded to FasTag mode from April 2020 onwards.

To cater the traffic demand, the stretch from Akkarai to Mammallapuram has been widened to Four lane divided carriageway. Further Geometrical improvements were made in the Stretch from Mamallapuram to Koonimedu which has helped to reduce the accidents to a great extent.

14.2 PROJECTS UNDER IMPLEMENTATION

The TNRDC apart from playing agency role is also performing a Managing Associate for few projects as detailed below;

14.2.1 Chennai Outer Ring Road

The Green field road project from Vandalur on NH32 to Minjur at Tiruvottiyur-Ponneri-Pancheti project road for a length of 60.15 km has been taken up in two phases under DBFOT (Design, Build, Finance, Operate and Transfer) model.

The road is designed to provide an orbital link to all the radiating roads from Chennai. It has

been constructed with a dual three lane carriageway with 5.5 mtr service lane, 2.5 mtr wide Drain and Utilities duct cum Foot path on either side.

Phase-I starts from NH-32 at Vandalur to Nemilicherry at NH 716 for a length of 29.65 km has been completed at a cost of Rs.1081.40 Crore under DBFOT and it is in public use, except few project facilities such as minor junctions, Truck lay byes etc., which are planned to complete soon.

Phase-II starts from Nemilicherry at NH 716 and ends at Minjur on TPP road. Out of 30.50 km total length of the road at an estimated cost of Rs.1075 Crore 30.20 km length of road has been completed under the DBFOT model. As the Court cases on land litigation of 0.30 km length has been disposed, the construction work for 0.30 km will be commenced soon.

This road is already declared as a Toll road and the user fee collection will be started from the ensuing financial year.

14.2.2 Construction of a Four Lane High Level Bridge at Ilayanarkuppam in ECR

The construction of a four lane high level bridge at km 69/300 in lieu of sunken bridge across the back water in ECR road at Ilayanarkuppam, announced during 2017-18, is taken-up at a cost of Rs.23.78 crore including the bypass to Pudupattinam located in the approach is nearing completion and will put into public use soon.

14.2.3 Widening and improving North Chennai Thermal Power Station Road and Kamarajar Port Road

TNRDC has taken-up the widening of the existing two lane road to four lane of North Chennai Thermal Power Station Road and the road leading to Kamarajar Port Main Gate for a total length of 7.2 Km as a deposit work to Kamarajar Port. The concrete pavement work is being implemented at a cost of Rs.195 Crore.

The work of four laning 2.38 Kms of road to Kamarajar Port Road is under progress.

Contract procurement for the North Chennai Thermal Power Station Road is in progress and

the construction work will be commenced in this financial year.

14.2.4 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 has been taken up for widening to four lane configuration under Tamil Nadu Investment Promotion Programme (TNIPP) at a cost of Rs.24 Crore. This concrete pavement work is in progress.

14.3 IT EXPRESSWAY LTD., (ITEL)

M/s IT Expressway Ltd., (ITEL) was incorporated by TNRDC during February 2004 as a wholly owned subsidiary of TNRDC for domiciling the IT Corridor Project, with a shareholding pattern of 77% by TNRDC and balance 23% by TIDCO.

14.3.1 Project Completed by ITEL

14.3.1.1 *Rajiv Gandhi Salai (IT Expressway) Phase-I*

The Old Mahabalipuram Road from Chennai Madhya Kailash to Siruseri for 20.10 km, IT Expressway, Phase-I including the 2.15 km link to ECR, is under operation and maintenance as a Toll road. The existing toll collection system is proposed to be upgraded to FASTag mode from April 2020 onwards.

14.3.2 Projects In Pipeline with ITEL

14.3.2.1 *Rajiv Gandhi Salai (IT Expressway) 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 have been planned.

Administrative Sanction has been accorded for a sum of Rs.465.13 Crore for acquisition of required land to an extent of 88.62 ha. in 13 villages. Land acquisition works is nearing completion.

The DPR for a length of 25 Km from Siruseri to Mamallapuram including two bypasses were prepared and the estimated cost is Rs.573.99 Crore. For the 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 is under progress. The second stage of improvements and widening of the existing road from Siruseri to Mamallapuram for a length of 14.8 km is planned to be implemented during this year.

14.3.2.2 Multi Level Car Parking (MLCP) at Siruseri

The Multi Level Car Parking (MLCP) at Siruseri under PPP mode, with nine floors for Bus and 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 falls within the MLCP portion, the DFR is now being modified to incorporate the above changes.

14.3.2.3 *Elevated Corridor*

DPR for the Elevated Corridor from Taramani to Siruseri under Phase-I and from Siruseri to Mamallapuram under Phase-II, for a total length of 45 km has been completed. The DPR is now being revised to incorporate the proposed CMRL along this corridor.

14.3.2.4 *Development of Integrated Traffic Infrastructure at Tidel Park Junction*

Government accorded sanction for Rs.108.13 Crore to ease traffic congestion at TIDEL Park Junction. A comprehensive proposal consists with the following components is taken up.

Construction of 'U' shaped Grade separators in OMR at TIDEL park Tiruvanmiyur (ECR) road Junction and at the Indira Nagar Road Junction, Widening of Buckingham Canal Bridge at ECR road and OMR Junction, Foot Over Bridge at ECR Road Junction. The DPR has been finalized for this work and contract procurement is in progress. The construction work will be commenced during this year and completed in 24 months time.

14.4 OVERALL EXPENDITURE 2019-20 AND ALLOCATION FOR 2020-21

During 2019-20 upto February, for TNRDC works at an expenditure of Rs.485.67 Crore has been incurred

Budget allotment of Rs.556.42 Crore has been provided for the year 2020-21.

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**Construction of Interchange with ROB connecting
Chennai Outer Ring Road at Vandalur**



Chennai Outer Ring Road Phase-II

15. TAMIL NADU ROAD INFRASTRUCTURE DEVELOPMENT CORPORATION

The Chairman cum Managing Director of Tamil Nadu Road Infrastructure Development Corporation is the Principal Secretary, Highways and Minor Ports Department and the Board of Directors are the representatives from various Departments of Government of Tamil Nadu.

Tamil Nadu Road Infrastructure Development Corporation (TNRIDC) was instituted in the year 2005. The unit is solely owned by the Government and is a non-profitable organization implementing road infrastructures projects.

15.1 PROJECTS IMPLEMENTED BY TNRIDC

15.1.1 ORAGADAM INDUSTRIAL CORRIDOR PROJECT

Due to recent liberalization in industrial policies in Tamil Nadu, there is vast development in major manufacturing and engineering industrial units. Many of the units

are in collaboration with national and international organizations.

Four SIPCOT units which includes many multi-national companies, six Global car manufacturing industries, National Automotive Testing and R&D Infrastructure Project (NATRIP) are all part of industrial estate situated in Oragadam and Sriperumbudur of Kanchipuram district.

The industrialization of this zone has enhanced high intensity of traffic flow which needs better road infrastructure. Considering the traffic flow, Oragadam Industrial Corridor Project has been taken-up in phased manner as mentioned below.

Phase - I

The work of Widening from Two lane to Four lane and Improvements to Singaperumalkoil – Sriperumpudur road (24.00Km part of SH-57) and Vandalur – Wallajabad road (33.40Km part of SH-48) were taken up at a cost of Rs.300 Crore for a total length of 57.40Km including one Grade Separator at the Junction of the

above two roads which is under implementation at a revised cost of Rs.612.82 Crore.

Road work to a length of 56.90 Km along with Grade Separator have been completed except 0.5km (Sriperumpudur) which is pending due to land acquisition and Court case. After completion of land Acquisition in Sriperumpudur village, the work will be taken up for implementation.

Phase - II

The work of upgradation from Four laning to Six laning of Singaperumalkoil – Sriperumpudur road from Km 12/6 to 24/6 was taken at a cost of Rs.86.65 Crore is under implementation at a revised cost of Rs.108.66 Crore. 11.20Km road work has been completed and 0.80km road work is pending due to land acquisition and court case. On completion of the Land Acquisition, the work will be done and completed in the ensuing financial year.

Phase – III

The work of Improvements from Four laning to Six laning of Singaperumalkoil – Sriperumpudur road Km 0/6 – 12/6 (SH-57) was taken up for implementation at a cost of Rs.115.00 Crore. The work has been completed and opened to traffic.

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” was taken up for implementation at a cost of Rs.189.81 Crore. 14.36 Km has been completed and balance 1.80 Km in Padappai is in progress.

In Padappai, the work of construction of Grade Separator is taken up instead of By Pass at a cost of Rs 25.52 Crore.

Phase – V

The work of Improvements from Four laning to Six laning of Vandalur – Wallajabad Road from km 47/0 – 63/8 has been taken up at a cost of Rs.180.09 Crore. 70% of the work has

been completed and the balance work will be completed in the ensuing financial year.

15.2 FOUR LANING OF MADURAI RING ROAD

Madurai Ring Road commence near Meenakshi Mission Hospital and Dr. M.G.R. integrated bus stand and ends at NH-44 near Kappalur Industrial Estate, which is having a total length of 27.20 km. Based on the sectoral growth and traffic needs, the project of "Widening of Madurai Ring Road from two lane to four lane from Km 0/0 – 27/2" was sanctioned under BOT (Toll basis) at a cost of Rs.213.69 Crore., with a Viability Gap Fund (VGF) of Rs.80 Crore from the State.

Work completed except ROB at Kappalaur for which safety clearance from Railway has just received and the entire work will be completed by June 2020.

User fee collection commenced from 22.11.2019 and FasTag will be introduced in this financial year.

15.3 PERMANENT FLOOD RESTORATION UNDER CRIDP 2018 –19.

As a part of flood restoration works, in order to increase the capacity of Cross Drainage works in Adayar River, permanent Restoration under CRIDP, the work of Construction of Minor Bridge at km 33/6 of Vandalur – Wallajabad road (SH-48) has been taken up at a cost of Rs.4.80 Crore. 75% of work has been completed and balance work is in progress.

15.4 DEPOSIT WORK

The Government of Tamil Nadu has entered into a Memorandum of Understanding (MoU) with M/s Daimler India Commercial Vehicle plant at Oragadam to provide an access road to Daimler India Commercial Vehicle Plant and based on MoU, the work was sanctioned at a cost of Rs.7.50 Crore, on deposit basis from SIPCOT. This access, branches at km 46/342 of Vandalur – Wallajabad road (SH 48) and ends at northern side of the Company. 50 % of work has been completed and the balance work is in progress.

15.5 OVERALL EXPENDITURE (2019-20) AND ALLOCATION FOR 2020-21.

During 2019-20 upto February an expenditure of Rs.104.70 Crore have been incurred for implementation of the aforesaid schemes.

For 2020-21, Budgetary allocation of Rs.99.50 Crore has been made.



**Six Laning of Singaperumalkoil – Sriperumbudur Road
km 0/800**



Four Laning of Madurai Ring Road km 23/800

16. TAMIL NADU MARITIME BOARD

Tamil Nadu State has the second longest coastline of 1076 Kms in India. The coastline consists of Three Major Ports and 17 declared minor (Non-Major) ports, which are as follows: -

Major Ports

Chennai Port, Kamarajar Port (Ennore Port) and V.O. Chidambaranar Port (Thoothukudi).

Minor (Non-Major) Ports

i) Government Ports

Cuddalore, Nagapattinam, Pamban, Rameswaram, Kanyakumari, Colachel

ii) Captive Ports

Kattupalli, Ennore Minor Port, Panaiyur, Thiruchopuram, Silambimangalam, Parangipettai, PY-03 Oil Field, Thirukkadaiyur, Thirukkuvalai, Udangudi, Koodankulam

The Major Ports are controlled by the Government of India and the Minor Ports are under the control of Government of Tamil Nadu.

16.1 TAMIL NADU MARITIME BOARD ACT, 1995

Tamil Nadu Maritime Board is governed by an Act 1995 (4 of 1996) to provide for the constitution of a Maritime Board for Minor ports in the state of Tamil Nadu and to vest the Administration, Control and Management of such ports in that Board and for matters connected therewith.

16.2 MINOR PORTS DEVELOPMENT POLICY

Minor Ports along the Coast of Tamil Nadu are developed as per the Minor Ports Development Policy of Government of Tamil Nadu.

The Policy encourages Private Participation, Flexible Approach, Institutional Co-ordination and Backup. Tamil Nadu Maritime Board is a statutory body and is functioning with enough freedom and operational flexibility for rapid development of the Minor Ports in the State but with commercial prudence and responsibility.

16.3 ACTIVITIES AT THE OPERATIONAL MINOR PORTS (NON-MAJOR PORTS)

16.3.1 GOVERNMENT PORTS:

Cuddalore Port: is an Open sea anchorage port and is being developed with the financial assistance of Government of India (Sagarmala / Coastal Berth Scheme) into a Deepwater, Direct berthing port for small / medium size ships.

Nagapattinam Port: is an Open sea anchorage port handling import of Edible Oil through barges.

Pamban Port: Pilotage services are provided in the Pamban channel, which provide East-West sea-borne connectivity for smaller vessels / crafts.

Rameswaram Port: a short trip passenger ferry is operated near Agnitheertham area.

Kanyakumari Port: is a Passenger ferry port providing ferry services to Vivekananda Rock Memorial and Ayyan Thiruvalluvar Statue, operated by Poompuhar Shipping Corporation Limited.

16.3.2 CAPTIVE PORTS / TERMINALS:

Kattupalli Port: Shipbuilding, Ship repairs and Modular Fabrication works are carried out by Larsen & Toubro Limited. Export / Import cargoes are handled by Marine Infrastructure Developer Private Limited.

Ennore Minor Port: Imports Liquid Ammonia through Multiple Buoy Mooring system.

Chemplast Marine Terminal at Cuddalore: A part of Cuddalore Port and is used to Import Vinyl Chloride Monomer through Island Jetty.

Thirukkadaiyur Port: Imports Naphtha through Single Point Mooring as required by Tamil Nadu Generation and Distribution Corporation Limited.

Koodankulam Port: Import of Machinery/ Over Dimensional Cargo are handled through Roll on – Roll off Jetty for Kudankulam Nuclear Power Project Units 3 & 4.

The other 8 declared minor ports are under various stages of obtaining statutory clearances, development, etc.,

16.4 INITIATIVES OF THE BOARD IN DEVELOPMENT OF PORTS:

16.4.1 CUDDALORE PORT:

Cuddalore Port is under development as Deep water, Direct Berthing port at a cost of Rs.135 Crore under Sagarmala / Coastal Berth Scheme with the financial assistance from Government of India. On development, small and medium size vessels, coastal vessels are expected to call Cuddalore Port.

The development works have commenced in September 2018 and expected completion by October – 2020.

16.4.2 KANYAKUMARI PORT:

(i) Extension of Jetty at Vivekananda Rock Memorial at Kanyakumari:-

Extension of Jetty at Vivekananda Rock Memorial is to be carried out under Sagarmala Programme / Coastal Berth Scheme at a cost of Rs.20 Crore with the financial assistance from

Government of India. This facility shall attract more tourists / passengers to visit Vivekananda Rock Memorial and Ayyan Thiruvalluvar Statue. Works are expected to commence soon and will be completed by March - 2021.

(ii) Pedestrian Marine Bridge connecting Vivekananda Rock Memorial and Ayyan Thiruvalluvar Statue Rock:

Tamil Nadu Maritime Board has proposed to construct an Iconic Pedestrian Marine Bridge connecting Vivekananda Rock Memorial and Ayyan Thiruvalluvar Statue Rock for a length of about 140 metres at Kanyakumari. It will attract more number of Passengers / Tourists to visit Ayyan Thiruvalluvar Statue. The Project is proposed to be executed in the Financial Year 2020 – 2021.

16.4.3 UDANGUDI PORT:

A trestle jetty is under construction by Tamil Nadu Generation and Distribution Corporation Limited for handling bulk Coal for the proposed Thermal Power Plant. The construction works

have commenced in June 2018 and would be completed by May 2021.

16.5 TAMIL NADU MARITIME ACADEMY

Tamil Nadu Maritime Academy, an autonomous body under the Government of Tamil Nadu, located in Thoothukudi, is under the administrative control of Tamil Nadu Maritime Board. The Academy conducts Directorate General of Shipping approved General Purpose rating residential course of 6 months duration with 40 trainees per batch and also mandatory pre-sea and post-sea courses for ratings.

16.6 CARGO HANDLED AND REVENUE OF THE BOARD FOR 2019-2020

During 2019-2020 upto February, 10,84,520 MT of cargo and 6,35,384 (TEU) of containers have been handled through the Minor Ports.

Tamil Nadu Maritime Board during 2019-2020 upto the month of February have earned a Gross revenue of **Rs.46.16 Crore.**



MINOR PORTS IN TAMIL NADU



Map prepared by
Navic Maps Publications, Madras 600112 88801

GOVERNMENT PORTS

1. Cuddalore
2. Nagappattinam
3. Pamban
4. Rameswaram
5. Kanyakumari
6. Colachel

CAPTIVE PORTS (C.P)

1. Kattupalli
2. Ennore Minor Port
3. Panaiyur
4. Thiruchopuram
5. Silambingalam
6. Parangipettai
7. Py-03 Oilfield
8. Tirukkadaiyur
9. Thirukkuvalai
10. Udangudi
11. Koodankulam

17. POOMPUHAR SHIPPING CORPORATION LIMITED

The Government of Tamil Nadu formed a Shipping company on 11.04.1974 under the companies Act, 1956 in the name of Poompuhar Shipping Corporation Limited (PSC) with the main objective of transporting the coal, required for the Tamil Nadu Generation and Distribution Corporation Ltd., (TANGEDCO) for the generation of electricity. This is the only State owned Shipping Corporation in our country.

17.1 ADMINISTRATION

The corporation is headed by the Chairman and Managing Director. The affairs of the corporation are managed by the Board of Directors consisting of officers nominated by the Government of Tamil Nadu. The day to day activities are executed by the various internal departments namely technical, Personnel & Administration, operation and finance headed by the qualified officers in their respective fields. The human resource of the corporation is 76 personnel.

17.2 CORE ACTIVITIES

The core activities of the corporation are the transportation of thermal coal along the East Coast of India. The ferrying passengers from the shore of Kanniyakumari to Vivekananda Rock Memorial and Ayyan Thiruvalluvar statue.

17.3 COAL MOVEMENT

17.3.1 COAL MOVEMENT FOR TANGEDCO

The entire domestic coal allotted by the Indian coal companies to the TANGEDCO is transported from the load ports of Haldia, Paradip Dhamra and Vishakapattinam to the discharge ports at Ennore, Karaikal and Tuticorin through the ships chartered from the shipping companies.

17.3.2 COAL MOVEMENT FOR NTECL

The corporation is also transporting the entire domestic coal from the load ports of Paradip and Dhamra to Ennore for NTPC Tamil Nadu Energy Company Ltd., (NTECL), a joint venture of the TANGEDCO and NTPC., for its 3

thermal power stations with 500MW each at Vallur, North Chennai as per the Memorandum of Understanding.

17.4 COAL TRANSPORT AND PERFORMANCE

With the 15 chartered vessels, the maximum coal transporting capacity of the corporation is 309 lakh Metric Tonnes per annum. Of which 243 lakh Metric Tonnes is intended for Ennore delivery port and 66 lakh Metric Tonnes for Tuticorin port. However, the maximum transporting capacity of the Corporation depends on the time and delivery of coal stock by the Indian coal companies and the optimum utilization of power production capacity of the TANGEDCO and the NTECL. During the year 2019-2020, the corporation utilized 12 chartered vessels based on their need and necessity.

The physical and financial performance of the corporation during the last three financial years is given below:

Physical performance (in lakh MT)

Year	Quantity of coal received at load ports	Quantity transported
2017-2018	190.00	188.85
2018-2019	210.06	205.02
2019-2020	165.00	160.00

17.5 PLAN FOR 2020-2021

During the year 2020-2021 the Corporation proposes to transport the coal allotment of 200.98 Lakh Metric Tonne and 58.90 Lakh Metric Tonne for the TANGEDCO and the NTECL respectively by means of the chartered vessels.

17.6 PRICING POLICY

As the Corporation was formed with the main objective of transporting coal for the TANGEDCO, the Corporation receives actual cost of operation on the basis of "No Profit and No Loss" and proportionate share of administrative cost from the TANGEDCO.

The transportation of coal for NTECL is undertaken with service charges of 5% on charter hire charges of the vessels chartered for their operations.

17.7 KANNIYAKUMARI FERRY SERVICE

The corporation Ferries tourists from the shore to Vivekananda Rock Memorial and the Ayyan Thiruvalluvar statue. Presently, three ferries namely M.L.Guhan, M.L.Pothigai and M.L.Vivekananda with a seating capacity of 150 each are being operated since 11.08.1984.

The Corporation has issued work order for constructing two new ferries for Rs.8.24 Crore with capacity of 150 & 75 passengers each. The Project has been sponsored by the Tamil Nadu Tourism department with the financial assistance of Asian Development Bank (ADB). The two new ferries would be pressed into service during 2020-2021.

The ferries are normally operated at 8 AM. However, during the peak seasons they are started at 6 AM for the benefit of the tourists

Physical and Financial Performance of Kanniyakumari ferry service

Year	No. of tourists (in Lakh)	(Rs. in Lakh)	
		Gross earnings	Profit
2017-2018	21.67	835.67	268.90
2018-2019	19.93	952.60	196.85
2019-2020*	20.37	1263.00	-

2019-2020* Provisional

17.8 FINANCIAL PERFORMANCE OF THE CORPORATION

The Corporation has declared a dividend of Rs.269.59 Lakh being 30% on the operating profit of Rs.898.63 lakh for the financial year 2018-19.

Financial performance (Rs in lakh)

Year	Turn Over	Net operating profit (PAT)	Dividend declared
2017-2018	52476.78	111.78	33.54
2018-2019	87829.61	898.63	269.59
2019-2020*	65691.15	400.00	-

2019-2020* Provisional

18. CONCLUSION

Road transport is the preferred mode of transport for easy movement of the people within short distances. The rising income levels of individual have led to increase in traffic volume of high speed vehicles which have resulted in traffic congestion. Hence it is necessary to enhance the road infrastructure facilities. In order to provide the smooth flow of traffic without interruption, upgradation of roads as per the traffic requirements, construction of grade separators, Road over bridges/under bridges and bypasses in the categories of State Highways, Major District Roads and Other District Roads are very essential. Hence, the infrastructure facilities in the road sector are taken up under various schemes of the Highways department.

In urban areas, improvements to roads lying in Corporation limits are being planned for ensuring safety aspects of pedestrian movement. To relieve the traffic congestion in the Chennai Metropolitan area, 18 projects have

been identified as a long term measure and Land Acquisition for these projects has been initiated.

Upgradation of Panchayat Union /Panchayat roads to ODR standards, have been taken up to improve connectivity and to promote the development of the rural areas.

To improve the connectivity of the road network in the influence zone of the Chennai - Kanyakumari Industrial Corridor, upgradation of the 15 State Highways has been undertaken with loan assistance of Asian Development Bank (ADB). Also, to improve commercial activities in Ennore, Kattupalli Ports and to relieve traffic congestion in and around Chennai, Peripheral Ring road has been proposed through external funding.

Reduction of fatalities due to road accidents is of prime importance to this department. Blackspots have been identified and Engineering measures for improving the road safety are being carried out. Road Safety Audit (RSA) has been conducted in SHs and MDRs and remedial measures also being taken up based on the priority in phased manner. In the new projects,

RSA has been conducted in the initial stage of the planning and also during construction phase. After the completion of the project, continuous monitoring is also taken up. Training has also been imparted in the RSA to the officials of this department. Action has also been taken to reduce the accident in coordination with Transport, Police, Health, and Education Department.

The Department is striving to deliver an efficient and quality road network system and to achieve targets of the Sustainable Development Goals 2030 which has formulated in the United Nations Summit.

Tamil Nadu now occupies third position in the list of States on the Sustainable Development Goals. With all the sustained efforts the State aims to achieve the “numero uno” status.

Tamil Nadu Maritime Board helps in the decongestion of Major ports in the commercial activities and development of the activities in the minor ports which contributes to industrialization and stimulate economic development.

The Poompuhar Shipping Corporation Limited helps in the transportation of coal through chartered vessels for the generation of electricity and also operation of ferry services between Kanyakumari and Vivekananda Rock Memorial and Ayyan Tiruvallur Statue. This department also contributes a part in developing the Energy and Tourism sectors.

Tamil Nadu is a pioneer among all states in reducing road accidents and functions with the goal of accident free Tamil Nadu.

Tamil Nadu serve all sections of the society by having a well-connected road infrastructure and a good transportation system.

Edappadi K. Palaniswami
Chief Minister