



HIGHWAYS AND MINOR PORTS DEPARTMENT

DEMAND NO - 21

POLICY NOTE ON

ROADS, BRIDGES, MINOR PORTS AND SHIPPING

2010 - 2011

INTRODUCTION

Tamil Nadu is the 3rd biggest state in urbanization by virtue of development achieved in the fields of industry, information technology, special economic zone and many other sectors. Roads and bridges play a vital role in promoting industrial development. Accelerated Industrial growth, ever increasing number of vehicles and development of ports have increased vehicular traffic manifold. Highways Department of Tamil Nadu develops the road and bridges infrastructure with an objective to provide wider roads, safe journey and hassle free traffic.

Tamil Nadu has a total area of 1,30,058 Sq km. In this, there are roads to the total length of 1,99,040 Km. Out of this, 61,641 Km length of roads are maintained by Centre and State Highways Department.

Categories of roads and their length:

Category of road	Length(Km)
National Highways(NH)	4,873
State Highways(SH)	9,384
Major District Roads(MDR)	11,288
Other District Roads(ODR)	36,096
Total	61,641

Apart from this, roads are maintained also by local bodies and other departments.

Types of Bridges and their numbers:

Types of Bridges	No.
Major Bridges	1,326
Minor Bridges	7,770
Culverts	1,08,915
Road Over Bridges in railway level crossings	181
Road Under Bridges in railway level crossings	58
Total	1,18,250

In India, road infrastructure facilities are available at an average of 329 Km for every one lakh population. In Tamil Nadu, road infrastructure facilities are available to the extent of 319 Km for every one lakh population.

Moreover, the road network in Tamil Nadu is 153 Km. per 100 Sq. Km area, which is higher than the average of 103 Km. in India. This itself is a proof that the road infrastructure facilities have developed well in Tamil Nadu.

The coastal length of Tamil Nadu is 1076 Km. In this, there are 3 major ports namely Chennai, Ennore and Tuticorin. In 2006 , there were only 15 minor ports. This has increased to 20 due to the earnest steps taken by this Government. The major ports developed under the Major Port Trust Act of 1963, are functioning under the control of Government of India and the minor ports developed based on Indian Ports Act of 1908 are functioning under the control of State Government.

The works of administering, controlling, regulating and managing the minor ports were carried out through the Minor Ports Department of Tamil Nadu Government. The Tamil Nadu Maritime Board was formed on 18.3.1997, as per the Tamil Nadu Maritime Board Act 1995. The Maritime Training Institute which was formed in Thoothukudi on 16.09.1998 is now functioning under the control of the Tamil Nadu Maritime Board as per G.O.No.196 Highways & Minor Ports Department dated 01.08.2008.

Poombuhar Shipping Corporation Limited was formed on 11.04.1974 under the Companies Act 1956 to transport by sea the coal from the ports to the Thermal Power Plants of TNEB. This corporation is transporting the coal from the ports at Haldia, Paradeep and Vishakapattinam to the Ennore and Thoothukudi ports through its own vessels namely M.V.Tamil Anna, M.V. Tamil Periyar and M.V. Tamil Kamaraj and through hired vessels.

Moreover, the corporation is conducting ferry service to the tourists from the shore of Kanyakumari to Vivekananda Memorial Rock and to Ayyan Tiruvalluvar Statue through three mechanised boats namely M.L.Gugan, M.L.Podhigai and M.L.Bhagirathi.

II POLICY OUTLINE

This Government under the leadership of Dr. Kalaingar, Hon'ble Chief Minister of Tamilnadu, is giving top priority to the development of road Infrastructure facilities in Tamil Nadu. A separate Highways Department exclusively to develop roads and bridges was formed in April 1946. The Highways Department is very well carrying out road development works as per the IRC Standards in such a way to fulfil the demands of ever increasing vehicular traffic and the demands of road users. This department has been renamed and functioning in the name of Highways & Minor Ports Department from 2008. The Government has evolved the following twenty policies for this department.

1. To widen all State Highways so as to have a minimum width of two lanes (7 meter width).
2. To widen Major District Roads which have heavy traffic to a minimum width of intermediate lane (5.50 meter width).
3. To widen the important Other District Roads which have heavy traffic, to intermediate lane (5.50 meter width) in a phased manner.
4. To identify the stretches leading to mines which are used by the heavy vehicles and to strengthen the same.
5. Improving the Government roads connecting the habitations of Adi Dravidars and Tribals.
6. To form radial roads, ring roads, bypasses, in such a way to reduce traffic congestion.

7. To improve the roads leading to industrial areas and newly developing industrial zones. To improve the links between factories and ports to encourage industrial development thereby.
8. To improve roads leading to tourist spots and pilgrim centres for the convenience of general public.
9. To improve the roads of heavy traffic, through Public Private Partnership.
10. To construct pedestrian subways and foot over bridges wherever needed for pedestrians to cross the road.
11. Undertaking new avenue tree plantation wherever necessary and maintain them apart from maintaining the trees on Highway road margins.
12. Demarcate Highway boundary to protect Highway land.
13. To implement road accident data management system and to improve the accident prone spots identified by the system.
14. Apart from maintaining the already constructed bridges, to construct new ROBs and RUBs, across the rivers, in the road junctions where the traffic intensity is heavy and in the Railway Level Crossings.
15. To monitor and ensure the quality of works taken-up by the department.
16. To construct drainages in roads under the control of this department to avoid stagnation of water with assistance of local bodies.

17. To conduct special investigation to identify the road and bridge works to be taken up in future.
18. To improve the Minor Ports in Tamilnadu through Private investment thereby creating opportunities for its development.
19. To provide ferry service by sea to the tourists visiting Kanyakumari.
20. To undertake the transportation of coal required for the Thermal Power Plants of TNEB, through ships.

III Classification of Government Roads

3.1. National Highways

The Central Government has declared those stretches which have heavy traffic intensity and connect different State capitals, Major Ports, large industrial areas and tourist centres as National Highways. In Tamil Nadu, the length of National Highways which was 4,254 in 2006 has increased to 4,873 Km at present.

This Department undertakes the works of improving, maintaining and renewing in 1,613 Km length of National Highways, with the funds provided by Central Government. The National Highway Authority of India (NHAI) is undertaking directly the works of widening and improving of two lane with paved shoulders (10 m width), four lane and six lane in the balance 3,260 Km length of roads.

3.2. State Highways

The stretches which have heavy traffic intensity next only to National Highways are declared as State Highways by the State Government. These roads link district headquarters, important towns and the National Highways in the State and neighbouring States.

In Tamil Nadu, the length of State Highways which was 6,849 Km. in 2006, has now increased to 9,384 Km due to up-gradation of different kinds of stretches during the past four years after assumption of office by this Government.

As per the policy of the Government to widen all the State Highways to a minimum of two lane(7 m.width), except the 32 km. single lane stretches in Forest area which does not pertain to Highways Department, all the remaining

stretches have been widened as follows:-

- The length of roads which have more than two lanes (more than 7 m. width) are – 677 Km.
- The length of roads which have two lanes (7 m. width) are – 7,261 Km.
- The length of roads which have intermediate lane (5.5 m. width) are – 1,414 Km.

Thus, the percentage of two lane and multilane roads which was 62% in 2006 is now increased to 85% due to the earnest steps taken by this Government. The remaining intermediate stretches will also be widened as two lane stretches in a phased manner.

3.3. Major District Roads

Next to the State Highways, the stretches which have traffic intensity are declared as Major District Roads by the State Government. The Major District Roads connect production and marketing centres and these centres in turn are connected with the National Highways and State Highways.

In Tamil Nadu, the length of Major District Roads which was 7,569 Km. in 2006 is now increased to 11,288 Km.

In this,

- The length of roads which have more than two lanes (more than 7 m. width) are – 115 Km.
- The length of roads which have two lanes (7 m. width) are – 3,109 Km.
- The length of roads which have intermediate lane (5.5 m. width) are – 3,894 Km.
- The length of roads which have single lane (3.75 m. width) are – 4,170 Km.

Thus, the percentage of intermediate / two lane roads which was 47% in 2006 is now increased to 63% due to the earnest steps taken by this Government. The remaining single lane stretches will also be widened as intermediate lane stretches in a phased manner.

3.4. Other District Roads

In 2006, the length of Other District Roads (including Sugarcane Roads) was 42,748 Km. Due to up-gradation of roads then and there by this Government, the length is reduced to 36,096 Km. The Other District Roads connect Agricultural production centres and marketing centres with Taluk headquarters and other important roads nearby.

In this,

- The length of roads which have more than two lanes (more than 7 m. width) are – 31 Km.
- The length of roads which have two lanes (7 m. width) are – 948 Km.
- The length of roads which have intermediate lane (5.5 m. width) are – 2,292 Km.
- The length of roads which have single lane (3.75 m. width) are 32,825 Km.

3.5. Upgradation of Roads

Taking into account the ever increasing road traffic, the roads are upgraded then and there.

In the past four years, 10,240 Km length of roads have been upgraded. By this, it has become possible to improve and maintain the roads.

The details of roads upgraded:

Sl. No.	Roads upgraded	Year 2001-2006 length in km	Year 2006 – 2010 length in km
1	As National Highways	506	639
2	As State Highways	2,968	3,446
3	As Major District Roads	189	6,063
4	As Other District Roads	-	92
	Total	3,663	10,240

IV ORGANISATION STRUCTURE AND DEVELOPMENT

4.1. Highways Department

In an effort to re-organize the overall administration set-up and to increase the efficiency of the Highways Department, a new post of Director General will be created. The works of the department will be distributed among the eight wings of the Department as detailed below:-

a) Director General Wing:

- Overall Planning and Budgeting of Highways Department
- Establishment matters of all staff in Highways Department.
- Any other works the Government entrust then and there.

b) Construction & Maintenance Wing:

- Maintenance of State Highways, Major District Roads and Other District Roads and bridges thereon.
- Execution of Part –II scheme works.
- Restoration of roads and bridges damaged by the natural calamities like Monsoon, Flood and Tsunami.
- Execution of road and bridge works under Comprehensive Road Infrastructure Development Programme
- Formation of bypasses
- Implementation of road Infrastructure schemes under Public Private Partnership

- Sugarcane road development schemes
- Any other works the Government entrust then and there.

c) National Highways Wing:

- National Highways Development Plan works and maintenance of roads and bridges on National Highways with the funds of the Government of India.
- Revamped Central Road Fund scheme works.
- Economic and Interstate Importance scheme works.
- Bharat Nirman scheme works.
- Western Ghat Development Programme and Hill Area Development Programme works.
- Other centrally sponsored schemes relating to road development.

d) NABARD and Rural Roads Wing:

- Roads and bridge works with NABARD assistance
- Tsunami Relief works with Asian Development Bank assistance.
- Maintenance of certain Other District Roads
- Any other works the Government entrust then and there.

e) Projects Wing:

- Road Over and Under Bridges in Railway level crossings under the Railway Works Programme
- Major Bridge works with State funds and NABARD assistance
- Radial Roads and Ring Roads
- Formation of Sugarcane Roads
- Any other special scheme works entrusted by Government

f) Metro Wing:

- Execution of Chennai Metropolitan Development Plan (CMDP) works
- Road works, major bridge works and bridge works in road junctions under TNUDP – III
- Any other works in Metropolitan area entrusted by Government

g) Tamil Nadu Road Sector Project Wing:

- Road upgradation works with World Bank assistance
- Enhanced road maintenance works
- Undertaking studies for projects to be implemented through Public Private Partnership
- Strengthening the organisational set-up and implementation of Action Plans
- Implementation of Road Accident Data Management System

h) Investigation and Designs Wing:

- Carrying out investigation for new road & bridge works
- Preparation of structural designs, drawings and estimates for bridge works costing Rs. 2 crores and above
- Any other works entrusted by Government from time to time

i) Highways Research Station:

- Research activities relating to roads and bridges
- Road safety and traffic improvement works
- Quality Control activities through Highways Research Station and regional laboratories
- Any other works entrusted by Government

j) Tamil Nadu Road Infrastructure Development Corporation (TNRIDC):

- Development of road and bridge infrastructure required in industrial areas
- Any other special works entrusted by Government

k) Tamil Nadu Road Development Company (TNRDC):

- Management of Chennai Outer Ring Road Works
- Undertaking Rajiv Gandhi IT Expressway works
- Improving and maintaining the East Coast Road (Chennai to Puduchery) as Toll Road
- Any other works entrusted by Government

4.2. Tamil Nadu Maritime Board

- Management of Minor Ports
- Creation of Minor Ports through Private participation
- Running Maritime Academy connected with ship to give employment opportunity to youth

4.3. Poompuhar Shipping Corporation:

- Transportation of coal required by the Thermal Power Plants of TNEB through ships
- To provide boat transport by sea to the tourists of Kanyakumari to visit Ayyan Tiruvalluvar Statue and Vivekananda memorial rock and back.

4.4. Institutional Development of the Department

a) Revamping organization setup

The Government have decided to revamp the age-old procedures in administrative set-up of the department to cope-up the present needs with World Bank Assistance and started implementation of revamping the organization set-up of the department. Accordingly, the computerization of offices, enhancing the powers of Engineers, re-distribution of works among the different wings have already been implemented.

As a part of re-organization, the Government orders will be issued for creation of a new post of Director General to co-ordinate the functions of different wings of the department, Quality Control Set-up to ensure the quality of the works and for revamping the administrative set-up .

During the years 2001 – 2006 only 37 vacancies were filled-up. During the past 4 years, 1441 vacancies in various posts have been filled-up through direct recruitment as follows:-

Sl.No.	Post	No.
1	Assistant Engineer	295
2	Junior Engineer	1
3	Junior Draughting Officer	140
4	Audit Assistant	16
5	Junior Assistant	98
6	Steno Typist	8
7	Typist	126
8	Record Clerk	95
9	Road Inspector	362
10	Gang Mazdoor	300
	Total	1441

b) International Standard Organization 9001: 2008 Certification (ISO 9001: 2008 Certification)

As a part of re-organization of administrative set-up, action is being taken as a first step to obtain I.S.O (International Standard Organization) Certification for Coimbatore, Trichy Circles and Pudukottai and Erode Divisions of General wing and for Coimbatore Division of NABARD &RR wing of this department.

The audit report has been given to the National Productivity Council (NPC) and the task of obtaining certificate has been entrusted to the Bureau of Indian Standards.

The National Productivity Council (NPC) has completed the audit. Application fees for obtaining the certificate has been remitted. International Standard Organization is likely to take-up the audit soon. Certificate will be obtained in June 2010.

c) Road Management System:

Under the Tamil Nadu Road Sector Project which is being implemented with World Bank assistance, the data on roads and bridges throughout the State have been collected through net working system, processed and stored in consultation with the experts in the field and implemented.

The software on road management system has been uploaded in the server of the office of the Chief Engineer (General). Data collection and field survey are undertaken through Highways Research Station. This has been designed in such a way to help formulate State Highways and Major District Roads and to monitor them.

Moreover,

- Preparation of budget for various schemes
- Observing the performance and usage of entire road net work and
- Assessment of achievement made towards the goal set can be made by this.

d) Road Accident Data Management System:

Government have issued orders on 23.12.2008 to evolve a Road Accident Data Management System by the Highways Department in association with the Police and

Transport Departments. Standard guidelines approved in G.O. dated: 22.09.2009 for this system are being implemented.

Under this scheme,

- Arrangements have been made to develop a GIS based Computerized software to record, store, analyse and disseminate the data for the purpose of registering the accidents taking place in the Highways, investigating and exchanging the data.
- Orders have been issued to the State Transport Planning Centre (STPC) functioning under the control of Police Department, to collect and monitor data on road accidents and works are being undertaken accordingly.

e) Committee on Revised Administrative Sanction:

During execution of works particularly bridge works, by this department, due to change in design, price variation or necessity for additional items, there arise a situation to obtain Revised Administrative Sanction for certain works. In order to avoid the delay in according Revised Administrative Sanction for works by scrutinising each and every case individually, a committee with the representative of Government Finance Department was formed on 4.12.2008. A committee consisting of 3 retired Chief Engineers of the department has been formed to scrutinise the changes occurred due to technical reasons and to recommend the cases to the above committee.

Based on the recommendations of the committee for 328 road and bridge works costing Rs.840 crores orders of Government according Revised Administrative Sanction have been issued in no time and action taken to complete the works quickly.

f) Technical committee on estimates:

In order to follow the proper technical guidelines in all the estimates of road and bridge works and to execute the works with minimum cost, Technical Committees consisting of Divisional Engineers, Superintending Engineers and state level Engineers are functioning from the year 2009.

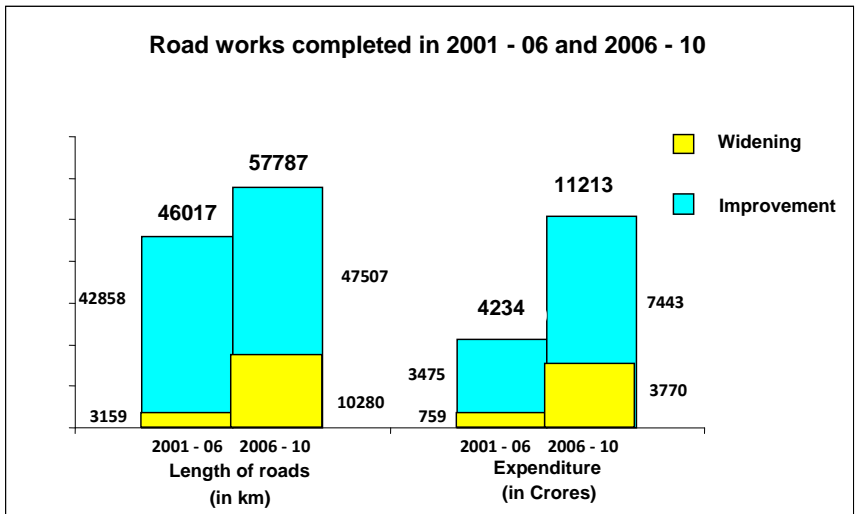
Accordingly, to give technical guidance for the preparation of estimates for road and bridge works costing from Rs.15 lakhs to Rs.50 lakhs by the Divisional Engineers level committee and for the works costing from Rs. 50 lakhs to Rs.2 Crores by the Superintending Engineers level committee and for the works costing more than Rs. 2 Crores by the Chief Engineers level committee, various committees have been formed and based on the guidance of these committees estimates are prepared and works executed.

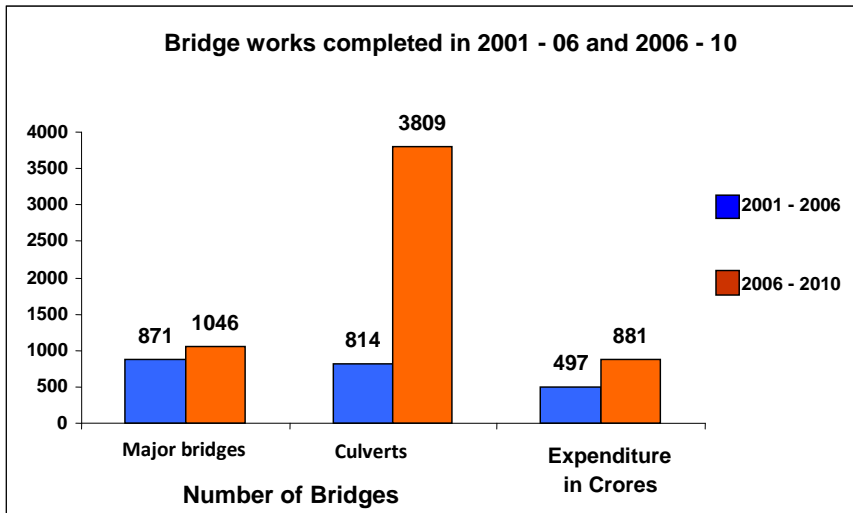
V Schemes implemented by the Department

The details of works executed

From the year 2001 to 2006, road and bridge works were executed at a total expenditure of Rs.4731 crores under Plan and Non-plan schemes. In this, roads for a length of 46,017 Km have been improved / renewed at an expenditure of Rs.4,234 crores and 871 bridges and 814 culverts constructed at an expenditure of Rs.497 crores.

During the four years tenure of this Government i.e., from 2006 to 2010, road and bridge works were executed at an expenditure of Rs.12,094 crores under Plan and Non-plan schemes. In this, roads for a length of 57,787 Km have been improved / renewed at the cost of Rs.11,213 crores and 1046 bridges and 3809 culverts constructed at an expenditure of Rs.881 crores.





Widening of roads

From the year 2001 to 2006, 3,159 Km. length of State Highways / Major District Roads / Other District Roads were widened at the cost of Rs.759 crores. During the four years period from 2006 to 2010, roads to the length of 10,280 Km. have been widened at the cost of Rs.3,770 crores.

Strengthening of roads

From the year 2001 to 2006, 24,497 Km. length of State Highways / Major District Roads / Other District Roads were strengthened at the cost of Rs.1,953 crores. During the four years period from 2006 to 2010, roads to the length of 19,361 Km. have been strengthened at the cost of Rs.4,057 crores.

Renewel of roads

From the year 2001 to 2006, 18,361 Km. length of State Highways / Major District Roads / Other District Roads were renewed at the cost of Rs.1,522 crores. During the four years period from 2006 to 2010, roads to the length of 28,146 Km. have been renewed at the cost of Rs.3,386 crores.

This includes the maintainance of works taken up in 50,645 bridges at the cost of Rs.26.79 crores during 2009-10.

Bridges and Culverts

From the year 2001 to 2006, 871 bridges and 814 culverts were constructed at the cost of Rs.497 crores. During the four years period from 2006 to 2010, 1,046 bridges and 3,809 culverts were constructed at the cost of Rs.881 crores.

Road over bridges in Railway level crossings

From the year 2006 to 2010, sanction has been accorded for construction of 104 Road Over Bridges / Road Under Bridges in lieu of the Railway Level Crossings, at the cost of Rs.2,247 crores on cost sharing basis by the Railway Department and Highways Department.

5.1. Comprehensive Road Infrastructure Development Programme (CRIDP)

Under the Comprehensive Road Infrastructure Development Programme, road widening works, road improvement works, bridge works and improvement works

in accident prone areas are being taken up in a massive scale with huge allocation of funds. With the advent of this scheme, it has become possible for two laning the State Highways, widen the Major District Roads and Other District Roads with heavy traffic intensity to intermediate lane and to make the road stretches fit for movement of laden vehicles.

During the last four years, out of the total plan expenditure of Rs.8,707 Crores, Rs.4,236 Crores has been spent for this scheme alone.

Utilising these funds –

- 9,487 Km length of roads have been widened at the cost of Rs.2,672 Crores
- 9,730 Km length of roads have been improved at the cost of Rs.1,492 Crores.
- 196 bridges have been constructed at the cost of Rs.72 crores.

Details are as follows:

5.1.1. State Highways

In 2009-10, sanction was accorded by Government for works costing Rs.442.23 Crores under CRIDP for -

- Widening 389 Km length of State Highways,
- Strengthening 548 Km length of roads,
- Construction of 116 Bridges / Culverts,
- Improving 43 Accident Spots and for
- Improving 14 Km length of roads in Tourist spots.

The following Major Bridges are among the bridge works sanctioned.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Thanjavur	Bridge across Vennar at Km.65 /10 of SH-27 (Perambalur Manamadurai road)	Palli Agraharam	6.00
2.	Krishnagiri	Bridge across Therpennaiyar at Km.4/4 of SH-17 (Malur – Hosur Athiyamankottai road)	Bagalur	3.20
3.	Pudukottai	Bridge across Kozhuvanar at Km.117/10 of SH-26 (Tiruchy – Pudukottai- Mimisal road)	Mimisal	2.65
4.	Tirunelveli	Bridge across Nambiyar at Km.30/2 of SH-177 (Cheranmadevi – Panangudi road)	Tiru kurungudi	2.65
5.	Tiruppur	Bridge across Noyyal river at Km.13/4 of SH-166 (Palladam- Avinashi road)	Mangalam	2.25
6.	Madurai	Bridge across Vaigai river at Km.17/10 of SH-73 (Tirumangalam- Pallapatti road)	Melakkal	1.25
7.	Namakkal	Bridge across Tirumanimuthar at Km.8/6 of SH-94 (Tiruchengode - Namakkal road)	Manickam palayam	1.50

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
8.	Tiruchy	Bridge across Panguni Vaikkal at 1/8 and Culvert at 2/8 in Km.1/10 of SH-62 (Tiruchy-Thuraiyur road)	Manachanallur	2.00
9.	Nagapattinam	Bridge across river Cauveri at Km.35/6 of SH-23 (Kumbakonam – Sirkazhi road)	Myladuthurai	1.00
10.	Chenglepet	Bridge across PWD Canal at Km.28/2 of SH-57 (Singaperumalkoil-Sriperumbudur road)	Sriperumbudur	1.30
11.	Vellore	Bridge across Mahendravadi surplus canal at Km.15/6 of SH-128 (Sholingar-Kaveri pakkam road)	Kizhveeranam	1.50
12.	Tiruvannamalai	Bridge across canal at Km.45/2 of SH-6 (Kallakurichi - Tiruvannamalai road)	Perunduraittattu	1.00

These works will be taken up for execution in the current year.

Out of the newly sanctioned works and spill over works 950 Km length of road works and 169 bridges / culverts have been completed at a cost of Rs.471.42 Crores.

The following Major Bridges have been completed.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Kancheepuram	Bridge across Vengal Odai at Km.7/10 of SH-48 (Marimalaiyadigal bridge – Irumbuliyur road)	Pallikaranai	3.97
2.	Kancheepuram	Bridge across Vengal Odai at Km.7/4 of SH-48 (Marimalaiyadigal bridge – Irumbuliyur road)	Pallikaranai	2.23
3.	Thanjavur	High level bridge across Nariyar at Km.51/2 of SH-29 (Thajavur – Karaikudi – Ilayangudi – Paramakudi – Sayalkudi road)	Seethambalpuram	1.80
4.	Namakkal	Bridge across Mangalapuram river at Km.14/6 of SH-79 (Malliyakarai – Rasipuram – Tiruchengode - Erode road)	Mangalapuram	1.00
5.	Tirunelveli	Bridge across Kaganathi at Km.14/8 of SH-44 (Paruvakudi – Ettayapuram - Vembar road)	Nakkalamuthanpatti	1.00

Important bridges under execution

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Villupuram	Bridge across Thuringalar at Km.73/4 of SH-9 (Cuddalore-Chithoor road)	Tirukoilur	2.50
2.	Thiruvallur	Bridge across Odai at Km.12/6, 13/6, 18/6 & 18/10 of SH-52 (Kavarapettai – Sathiyavedu road)	Poovalam bedu, Sanipoondi, Bommaji kulam	2.27
3.	Kanniya kumari	Bridge across koothanar canal at km 9/2 – 9/4 of SH-45 (Aralvaimozhi – Nedumangadu Road)	Andithoppu, Nanjilnadu	2.00
4.	Kanniya kumari	Bridge across Paraliyar at km 23/6 of SH-180(Kulachal – Thiruvettar Road)	Thiruvettar	2.00
5.	Kanniya kumari	Bridge at km 4/8 and minor bridge across odai at km 17/6 of SH-179(Kanniyakumari Pazhaya Uchakadai Road)	Valkulam	1.25
6.	Thanjavur	Bridge across Nasuviniyar at km 70/6 of SH-66(Kumbakonam – Mannargudi – Adhiram pattinam Road)	Pazhanjur	1.80
7.	Thiruvarur	Bridge across Mulliyar and Ayyanar River at km 39/2 of SH-63 (Thanjavur – Mannargudi – Kodyakkarai Road)	Thattankovil	1.50

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
8.	Madurai	Bridge across Periyar canal at km 32/8 of SH-73 (Thirumangamlam – Pallapatti Road)	Nachikulam	1.00
9.	Thirunelveli	Bridge across Aluthakanni River at km 122/2 of SH-40 (Thiruchendur – Palayamkottai – coutralam – Senkottai Road)	Tenkasi Mathalam parai	1.30
10.	Villupuram	Bridge across Odai at km 82/6 of SH-4 (Arcot – Villupuram Road)	Gingee Ottambattu	1.00

A provision of Rs.485.67 crores has been made in the current year, for the on going and for the new works to be sanctioned.

5.1.2. Major District Roads

In 2009-10, under the first phase of CRIDP sanction was accorded by Government for works costing Rs.352.90 Crores for -

- Widening 600 Km length of roads,
- Strengthening 515 Km length of roads,
- Construction of 88 Bridges / Culverts,
- Improving 26 Accident spots and for
- Improving 12 Km length of roads in Tourist spots.

The following Major Bridges are among the bridge works sanctioned.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Villupuram	Bride across Sankaraparani River at km 6/6 – 7/0 of Perumbakkam – Thiruvakkarai – Kodukkur Road	Thiruvak karai	7.00
2.	Coim batore	Bridge across Noyal river at km 0/6 of Iruttupallam– Poondi road	Iruttupallam	2.30
3.	Tiruppur	Bridge across Noyal river at km 1/6 of Karaipudur – V.T.Ayyan road	Chinna karai	1.50
4.	Vellore	Bridge at km 11/2 of Ranipettai – Ponnai Road	Ponnai	1.00

The above works will be taken up for execution during this year.

Out of the newly sanctioned works and spill over works 1081 Km length of road works and 128 bridges / culverts have been completed at a cost of Rs.361.29 crores. This includes the following completed major bridges.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Karur	Bridge across Odai at Km.10/8 of Irumboothipatti – Panchapatti road	Panchapatti	2.06
2.	Namakkal	Bridge across Paravaiyar at Km.32/6 – 8 of Solakadu – Arappaliswararkoil – Semmedu road	Arappaliswarar	2.03
3.	Thanjavur	Bridge Across Mudhalai Mugathuvari at km 1/2 of Vallam – Pudur Road	Thirumalai samuthiram	1.00
4.	Thanjavur	Bridge Across Kallanai canal at km 0/2 of Pachur Road	Pachur	1.05

Bridges under execution

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Thiruvarur	Bridge across Koraiyar at Km.0/2 of Muthupettai - Vaimedu road	Muthupettai	6.05
2.	Villupuram	Bridge across Manimuthar River at km 15/10 of road from Pagandai road junction to Mamandur.	Agara kottalam	1.95
3.	Thanjavur	Bridge across Kallanai Canal at km 14/6 of Vallam – Orathanadu Road	Eechan kottai	1.15

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
4.	Coimbatore	Bridge across Siruvani river at km 22/10 and minor bridge at km15/4 of Coimbatore-Siruvani road	Siruvani	1.00
5.	Madurai	Bridge across Keelavalavur Channel at km 42/6 of Melur – Thirupathur Road	Keela valavur	1.50
6.	Thirunelveli	Bridge across Harihara River at km 15/2 of Sivaramapettai – Panpozhe road	Senkottai	1.00
7.	Kanniya kumari	Bridge across Valliyar at km 5/4 of Paraseri Thingalsanthai – Pudhukadai Road	Iraniyal	1.81
8.	Kanniya kumari	Bridge across Irrattaikarai Odai at km 3/4 of Iraniyal – Rajakkamagalam Road	Kurundan kodu	1.00

A provision of Rs. 402.45 crores has been made in the current year, for the ongoing and for new works to be sanctioned.

5.1.3. Other District Roads

In 2009-10, sanction was accorded by Government for works costing Rs.245.26 Crores under CRIDP for -

- Widening and strengthening 1405 Km length of roads,
- Construction and Re-construction of 137 Bridges / Minor Bridges and for
- Improving 23 Km length of roads in Tourist spots.

Major Bridges sanctioned are as follows:-

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Madurai	Road Under Bridge in lieu of L.C. No.356 near Paravai	Paravai	8.50
2.	Tiruneveli	Bridge across Nambiyaur at Km.7/6 of Thalapathi Samudram-Kannanallur road	Kanna nallur	2.00
3.	Virudhu nagar	Bridge across Kayalkudi at km 5/10 of Ramalingapuram Road	Analkarai patti	1.08
4.	Madurai	Bridge across Silusiluppai Odai at km 0/10 of Othakadai - P.Metupatti Road	Othakadai	1.00
5.	Trichy	Bridges across Kaattar at km 5/4, 6/4 and 9/6 of Alanthalaipur – Kallagam Road	Maalvai	1.80
6.	Pudukottai	Bridge across Narasingaveri at km 0/2 of Karakkotai Road	Karakkottai	1.20
7.	Thiruvanna malai	Bridge across Suganathi at km 2/10 of Keezhkodungalur Road	Kil kodungalur	1.50

The above bridges will be taken up for execution during this year.

Of the works on hand including spill over works, 1318 Km length of road works and 109 bridges / culverts have been completed at a total cost of Rs.255.91 crores. This includes the following major bridge works completed.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Dharma puri	Bridge across Chinnar at Km.2/10 of Marandahalli – Panchapalli road near Athimutlur	Athimutlur	4.69
2.	Villupuram	Bridge across Gadilam river at Km.5/2 of Seekampattu road branching at Km 56/2 of Cuddalore Chitoor road.	Konda samudram	3.43
3.	Salem	Bridge across Vasishta River at Km.1/8 of Salem – Ulundurpet - Manivizhundhan road	Manivizhundhan	2.38
4.	Dharma puri	Bridge across Varattar at Km.1/10 of Andiyur Ammapettai road	Vedakatta maduvu	1.52

Major bridges under execution

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Cuddalore	Bridge across Vellar at Km.0/6 – 0/8 of Thittakudi Township road	Thittakudi	7.93
2.	Cuddalore	Bridge across Vellar at Km.0/4 – 0 /6 of Murugankudi - Kilimangalam road	Murugan kudi	7.64
3	Dharma puri	Bridge across Thenpennai rive at Km 7/10 – Aandiyur – Ammapettai road	Ammapettai Neepathurai	5.65

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
4.	Kancheepuram	Bridge across Adyar linking Mount Poonamallee Road & Manapakkam Road near Nandhampakkam	Nandhampakkam	4.45
5.	Villupuram	Bridge across Malattar at Km.7/6 of Madhagadipattu road branching from Km.18/6 of Cuddalore - Chittoor road	Kongampattu	2.00
6.	Pudukkottai	Bridge across Villulikkattar at km 3/2 of Ayakudi south – Balakrishnapuram Road	Balakrishnapuram Mathur	1.72
7.	Thirunelveli	Bridge across Karuppa River at km.0/2 of Keezhankadu – Balamathandapuram Road	Keezhankadu	1.90
8.	Virudhunagar	Bridge across Oppodai at km 0/2 of Karupureddyapatti – Ravuthanpatti (via) Nallamuthanpatti Road	Nallamuthanpatti	1.22
9.	Kanyakumari	Bridge across Kodaiyar at km 0/4 of Pechiparai Dam – Kodaiyar Road	Pechiparai	1.38

A provision of Rs.296.49 crores has been made in the current year, for the ongoing and for new works to be sanctioned.

5.1.4. Improvements to Other District Roads connecting Adi Dravida habitations

This Government is implementing from 2006-07 onwards, the scheme of improving those Other District Roads, connecting Adi Dravida habitations, under the Scheduled Caste Sub Plan, a part of CRIDP.

Based on the sanction accorded during 2009-10, for widening and strengthening 598 Km length of Other District Roads and for construction of 39 bridges / culverts at a total cost of Rs.96.59 Crores, 621 Km length of road works and 29 bridge / culvert works including spill over works have been completed at a cost of Rs.111 Crore.

The following Major Bridges are among the bridge works sanctioned in the year 2009-10

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Siva gangai	Bridge across Palar at Km.0/2 of S.V.Mangalam – Melpatti (via) Mattikaraipatti road	Mattikarai patti	2.00
2.	Dindigul	Bridge across Sandhana vardhini river at km.3/6 of Velvar-kottai–Kovilur Road	Kovilur	1.00
3.	Dindigul	Bridge across Sandhanavardhini river at km 3/10 of Thadikombu – Puthampatti Road	Undarpatti	1.25
4.	Dindigul	Bridge across Sandhanavardhini river At Km 0/10 Of Road Branching From Periyakottai – Kovilur Road to Kasthuriyakkanpatti	Kombaya patti	1.25
5	Dindigul	Bridge across Mangarai river at km 3/10 of Reddyarsathiram – Kannivadi Road	Pudupatti	1.00

A provision of Rs.133.85 crores has been made in the current year, for the ongoing and for new works to be sanctioned.

5.1.5. Part II Scheme Works:

During 2009-10 Government accorded sanction for construction of 7 bridges at a cost of Rs.9.51 Crores.

The major bridges sanctioned are as follows.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Thoothu kudi	Bridge across Kattar at Km.12/2 – 4 of Vilathikulam– Perunazhi road (MDR)	Kadalkudi (Chinnur)	2.50
2.	Tiruppur	Bridge across Nasuvankarai Odai at Km.20/4 of Kangeyam – Kodumudi road (MDR)	Muthur (Mettukadai)	2.40
3.	Trichy	Bridge across Uppar at km 14/8 of SH-62 (Tirchy – Thuraiyur Road)	Pera mangalam	1.23
4.	Dharma puri	Bridge across Kattaru at Km. 11/10 of Arur – Achalavadi Pethathampatti Road (MDR)	Achalavadi	1.18
5.	Salem	Bridge across Thirumanimutha River at Km. 7/8 of Salem – Veeranam - Japthi Veeranam (via) T.Perumalpalayam (ODR)	T. Peruma palayam	0.95

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
6.	Dindigul	Bridge across Santhanavarthini River at Km. 10/4 of from Vadamadurai – Siluvathur (via) Vattanam Road (MDR)	Kosavapatti	0.8
7.	Kanya kumari	Bridge across PWD Channel at Km.1/2 of Peruvilai Road (ODR)	Peruvilai	0.5

These works will be taken up for execution in the current year.

Of the works taken up in 2009 -10, and the spillover works, 12 bridge works have been completed at the cost of Rs.30.78 Crores.

In this, the following are major bridges completed.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Tiruchy	Bridge across Coleroon linking Sengaraiyur Village of Trichy Dist. & Alamelupuram, Poondi Villages of Thanjavur Dist. (ODR)	Sengaraiyur Alamelu puram, Poondi	46.00
2.	Tiruppur	Bridge across Amaravathi River in the road near Mayilrangam branching at Km.7/2 of Karattarpalayam – Mayilrangam – Vellathangarai – Pudur road (ODR)	Mayil rangam	5.19

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
3.	Erode	Bridge across Bhavani at Km.1/8–10 of Gobi - Savandapur road (MDR)	Athani	4.48
4.	Karur	Bridge across Amaravathi river at Km.91/8 of SH-21 (Pollachi – Dharapuram - Karur road)	Chinna Dharapuram	2.90
5.	Karur	Bridge across Nanganji at Km.326/4 of SH-193 (Aravakurichi bypass near Thadakoil)	Aravakurichi (Thadakoil)	1.69

Major bridges under execution

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Cuddalore	Bridge across Pennayar at Km.1/8 of Gundu Uppalavadi road (ODR)	Gundu Uppalavadi	4.50
2.	Ariyalur	Bridge across Chinnaru at Km.20/10 – 21/2 of SH-143 (Mathur – Thittakudi road)	Vayalapadi	3.84
3.	Tirunelveli	Bridge across Chithar at Km.51/2 of SH-39 (Tirunelveli – Shenkottah Quilon road)	Azhad Nagar	3.00
4.	Tirunelveli	Bridge across Nambiyaru at Km.7/10 of Nanguneri - Ervadi – Valliyur – Vijayapathi road (MDR)	Ervadi	3.00

A provision of Rs.13.96 Crores has been made in the current year for the on going works as well as new works.

5.2. Tsunami Rehabilitation Programme:

5.2.1. Tsunami Emergency Assistance Project with loan assistance from Asian Development Bank.

Sanction was accorded for construction of 5 major Bridge works and one road work at the cost of Rs.42.70 Crores in Tsunami affected Thiruvallur, Cuddalore and Nagapattinam districts with loan assistance from the Asian Development Bank. But, due to change in design, the Government accorded Revised Administrative Sanction for Rs.92.55 Crores.

In Cuddalore district, 20.60 km length of Alappakkam – Annankovil road work has been completed incurring an expenditure of Rs.9.40 Crores and put in to use of public.

During 2009-10, the following 4 Bridge works have been completed.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Cuddalore	Bridge across Paravanar at Km.1/4 of Pachaiyankuppam Sothikuppam road. (ODR)	Pachaiyan kuppam	23.50
2	Thiruvallur	Bridge across Pulicat Lake in Pulicat Light House Kuppam Road. (ODR)	Pulicat	17.15
3	Naga pattinam	Bridge across Uppanar river at Km.4/6 of Pichavaram - Kodiyampalayam road (ODR)	Kodiyam palayam	10.87

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
4	Naga pattinam	Bridge across Harichandranathi L.S.cut at Km.1/8-9 of Vettaikaraniruppu L.S.cut bungalow road (Pt. Union road)	Vettaikaran iruppu	4.22

The expenditure for this scheme in 2009-10 is Rs.21.45 Crores.

The remaining bridge work given below will be completed during the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Cuddalore	Bridge across Vellar river at Km 11/4 of Killai road (MDR)	Parangipettai	23.67

5.2.2. Improvement of roads and bridge works under Tsunami Rehabilitation Programme with central assistance

With a view to develop the road infrastructure in the Tsunami affected areas, the Government sanctioned 470.37 Km length of road improvement works and construction of 61 bridges at an estimated cost of Rs.277.78 crores.

A) Works implemented by General Wing

The Government accorded administrative sanction for taking up works of improving 423.22 Km length of roads and construction of 55 new bridges at a total cost of Rs.224.38crores under the Tsunami Rehabilitation Programme.

Of these, 4 road works and 3 bridge works were deleted and due to change in design and revision of design due to adoption of inland water way policy, Revised Administrative Sanction has been obtained for Rs.258.40crores for 16 bridge works. Thus, 413.37 Km length of road works and 52 bridge works have been taken up under this scheme.

Of these, 32 bridge works and 410 Km length of road works have been completed at the cost of Rs.125.85crores.

The following bridge works are in progress under this scheme.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Cuddalore	Bridge in Uppanar backwaters connecting Nochikadu Village with NH 45 A	Nochikadu	4.50
2.	Cuddalore	Bridge across Uppanaru at Km. 3/2 of Uchimedu – Subauppalavadi	Suba Uppalavadi	1.50
3.	Cuddalore	Bridge across Khan Saheb Canal at Km. 2/8 of Killai Road (MDR)	Thillai Vilagam	0.70
4.	Naga pattinam	Bridge across Sakkiliyan Canal at Km.10/6 of Velankanni-Vedaranyam Road (MDR)	Vizhuntha Mavadi	1.23
5.	Naga pattinam	Bridge across Pennai-yaru Branch Canal at Km. 3/2 of Pradama-ramapuram (ODR)	Pradama-ramapuram	1.36
6.	Kanya kumari	Bridge across AVN canal at Km. 5/10 of Neerodi - Iraiyanur Thurai Road (ODR)	Chinna thurai	0.80

In 2009 – 10 a sum of Rs.9.67 crores has been spent for this scheme.

The details of bridges to be commenced during the current year:

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Tiruvallur	Bridge at Km 0/4 of Pasiyavaram road branching from Chennai Pulicat road (Panchayat Road)	Pasiyavaram	18.00
2.	Tiruvallur	Bridge across Buckingham Canal in Sadayankuppam Panchayat Union road	Sadayan kuppam	13.25
3.	Thoothu kudi	Bridge across Tamarabharani river at Km.21/2 of SH-176 (Thoothukudi – Thiruchendur – Kanyakumari road)	Mukkani	15.00
4.	Naga pattinam	Bridge across Nallar, Adappar and Mullaiyar linking Vandal & Avarikadu (Panchayat Road)	Vandal & Avarikadu	11.35
5.	Naga pattinam	Bridges at 5 locations across Uppanar within Vedaranyam township limits	Vedaranyam	11.25
6.	Naga pattinam	Bridge across Vellapallam Uppanar linking Edamanal and Thirunagari (ODR)	Edamanal, Thirunagari	10.98
7.	Naga pattinam	Bridge across Vellaiyar at Km 0/4 of Serudhur Velankanni road (Panchayat Road)	Velankanni	5.00

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
8.	Naga pattinam	Bridge across Buckingham canal at Km.18/4 of Puthur – Pudupattinam - Pazhaiyar road (MDR)	Pazhaiyar	3.52
9.	Naga pattinam	Bridge Kaduvaiyaru at Km 2/6 of Pappakovil Karunkanni road (ODR)	Vadavur	2.37
10.	Kancheepuram	Bridge across Buckingham canal at Km.2/6 of Kadappakam road (ODR)	Kadappakam	5.50
11.	Kancheepuram	Bridge across Buckingham canal at Km. 0/6 of Thazhuthalikkuppam road branching at Km 11/4 of Vennangupattu Panayur road (ODR)	Thazhuthalikkuppam	5.10
12.	Kancheepuram	Bridge across Buckingham canal at Km. 3/2 of Thirupporur Nemili road (MDR)	Nemili	4.10
13.	Kancheepuram	Bridge across Buckingham canal at Km 57/4 of Chennai Mamallapuram road Via, Tirupporur (ODR)	Mamallapuram	4.00
14.	Ramanathapuram	Bridge across Backwaters at Km.5/6 of Sayalkudi Mookaiyur road (ODR)	Mookaiyur	5.50

B) Works implemented by NABARD & Rural Roads Wing

Under this scheme, the Government sanctioned Rs. 53.40 Crores for improving 47.15 Km length of roads and for construction of 6 high level bridges in Nagapattinam District. Revised administrative sanction has been obtained for Rs.73.79 crores.

In 2009 – 10, the following 3 bridges have been completed.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Naga pattinam	Improvements to Km 0/0-1/6 of Chinnakottayamedu and Kozhaiyar road and construction of bridge across Mudavanar drain channel (Valayakaran Odai) at Km. 0/6 of the same road. (Pt. road)	Chinna kottaya medu	2.70
2.	Naga pattinam	Construction of Bridge at Km 0/2 of Vadakkupoiyur – Akkaraipettai road Via, Keechankuppam Village (ODR)	Vadakku poiyur	2.15
3.	Naga pattinam	Construction of Bridge across Adappar at Km 81/0 of Vanavan Mahadevi road (Pt. union road)	Naalu Vethapathi	1.95

In 2009–10, a sum of Rs.6.95 crores has been spent for this scheme.

Action has been taken to obtain permission of Forest Department for execution of 3 road works under this scheme. Out of 3 bridge works, bridge in Thirumullaivasal of Nagapattinam District would be commenced during this year at an estimated cost of Rs. 27.50 crores.

The following 2 bridge works are in progress.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1.	Naga pattinam	Improvements to Perunthottam & Nayakkarkuppam road Km 0/0 – 1/5 and Bridge across Selvanar river at Km 0/8 and Bridge across Uppanar river at Km 1/2 (Pt. union road)	Perunthottam	12.96
2.	Naga pattinam	Improvements to Km 0/0 – 1/6 of Kumarakudi & Veppancheri road and construction of Bridge at Km. 0/6 (Pt. road)	Kumarakudi	6.12

5.2.3. World Bank Assisted Emergency Tsunami Rehabilitation Programme

The World Bank has sanctioned Rs.23.20 crores for construction of a new bridge connecting Keezhmanakudi and Melmanakudi villages in the Tsunami affected Kanyakumari District under Tamil Nadu Road Sector Project. Work order has been issued and work commenced on 16.03.2010.

5.3 CHENNAI METROPOLITAN DEVELOPMENT PROGRAMME (CMDP)

This scheme is being implemented with State funds to improve the road infrastructure network in and around Chennai Metropolitan area under the Chennai Metropolitan Development Programme. Under this, Government sanctioned works for improving roads, construction of bridges, construction of grade separators, construction of centre medians and foot paths etc., at a cost of Rs.825 crores. This includes 473 Km length of road works, 7 bridge works 5 road over bridges and 1 road over bridge in railway level crossing, rehabilitation of sub-way and construction of centre medians.

Up to 2009-10, about 385 Km length of road works, construction of footpaths, rehabilitation of sub-way and construction of centre medians have been completed at a cost of Rs.412 crores. The balance of 88 Km length of road works will be completed during the current year.

Further, the details of bridge works in progress in Metro Wing are as follows:-

RIVER BRIDGES

1. Widening of the Bridge near Vellavedu at Tirumazhisai Sathyavedu road in Tiruvallur District at an estimated cost of Rs.2.00 crores is nearing completion. This bridge will be completed by May 2010.

2. Bridge near RedHills lake at Km.17/2 of G.N.T road in Tiruvallur District at an estimated cost of Rs.4.96 crores is in advanced stage of completion. This work will be completed by May 2010.
3. Construction of new three lane bridge adjoining the old existing bridge at Aminjikai in Chennai, at a cost of Rs.3.30 crores is in progress and scheduled for completion by July 2010.
4. The work of providing a high level bridge across Coovan River on the road connecting Km 11/2 of GWT Road with Mogappair at a cost of Rs.16.04 Crores, has been approved and contract for execution was also finalized. The confirmatory bores for ascertaining sub soil strata for finalizing the pile foundations are in progress.
5. The work of construction of additional 3 lane bridge adjacent to the existing Thiru.Vi.Ka Bridge across Adyar River at an estimated cost of Rs.13.08 Crores has been taken up. Tender for this work was received on 19-4-2010 and under consideration.
6. The work of construction of a bridge across Ennore Creek to connect Ennore Express way with North Chennai Thermal Power Station Road has been sanctioned at a cost of Rs. 20.00 Crores. The proposed bridge site is across the Buckingham canal and Kusasthalayar river. Due to the notification of the Inland Water Way Authority, the alignment finalization got delayed. Only, during February 2010, the alignment has been finalized after the joint inspection with various agencies including PWD. Detailed Project Report is under preparation for the revised

alignment and General arrangement based on the requirement of Public Works Department. This work will be taken up for implementation during this financial year.

GRADE SEPARATORS

1. One Grade Separator work taken up under this scheme at the intersection of Pallavaram Thuraipakkam road and Maraimalai Adigal Bridge Irumpuliyur road near Pallikaranai has been completed by the Project wing at an estimated cost of Rs.21.02 crores and opened to public by the Hon'ble Deputy Chief Minister on 29-10-2009.
2. Construction of Grade separator at the intersection of Kodambakkam- Sriperumpudur road with Mount Poonamallee road at Porur in Tiruvallur District at an estimated cost of Rs.34.72 crores has been sanctioned. The contract for this work was finalized. Preparatory works are in progress,
3. Construction of Grade separator at the intersection of Madhavaram High Road with G.N.T road at Moolakadai Junction in Tiruvallur District at a cost of Rs.49.55 crores has been taken up. Tender for this work was received on 19-4-2010 and under consideration.
4. Construction of Grade Separator at the intersection of Anna Nagar 2nd Avenue, Thirumangalam Mogappair Road with Inner Ring Road at Thirumangalam has been taken up at an approximate cost of Rs. 46.46 Crores. Since the Chennai Metro Rail alignment and the proposed Grade Separator alignments are overlapping with each other, the concurrence from the CMRL has been sought for.

The CMRL has given its concurrence on 17-12-2009 and only after the concurrence, configuration of the Grade separator proposal has been finalized. Detailed Project Report is under preparation. This work will be taken up for execution in this year.

5. Construction of Grade Separator at the intersection of Inner ring road with NSK road at Vadapalani at a cost of Rs.30 crores has been sanctioned. As the alignment of this Grade separator runs along the Metro Rail alignment, the proposed work will be integrated with Metro Rail Project for execution by the Chennai Metro Rail Ltd..

ROAD OVER BRIDGE

1. Road Over Bridge at Viyasarpadi has been approved at an estimated cost of Rs.80.68 crores. The contract for this work was also finalized. This work is being carried out by the Project Wing. Confirmatory bores to ascertain Sub Soil strata for finalizing the pile foundations are in progress

5.4 Tamil Nadu Urban Development Project - III

Under the, Tamilnadu Urban Development Project-III, implemented with World Bank assistance sanction has been accorded for 5 road works, consisting 36 Km. length of roads in Chennai Metropolitan Area at the cost of Rs.145 Crores.

The details of works are as follows:-

1. The work of Widening the existing intermediate lane into two lane and Strengthening Km 0/0-17/4 of Minjur Kattur Thirupalaivanam Road in Tiruvallur District, has been sanctioned at a cost of Rs. 49.73 Crore. The Widening work is in progress.

2. The work of Widening the existing 2 lane road into six lane and strengthening Km 0/0-3/650 of Taramani Link Road in Chennai District, at a cost of Rs. 38.94 Crore has been sanctioned and the widening work is in progress
3. The work of Widening the existing single lane into two lane and Strengthening Km 0/0-6/4 of Ariyalur Vilangadupakkam Road in Tiruvallur District, at a cost of Rs. 15.10 Crore has been sanctioned and the work is in progress. This work will be completed during this financial year.
4. The work of Widening the existing single lane into two lane and Strengthening Km 0/0-7/0 of Koladi Road in Tiruvallur District has been sanctioned at a cost of Rs.33.48 Crore. At present, the Land Acquisition for this work is in progress. Work will be completed, during this financial year.
5. The work of Widening the existing single lane road into two lane and strengthening Km 0/0-1/6 of Madharavedu Road in Tiruvallur District at a cost of Rs. 4.82 Crore has been sanctioned and the work is in progress. This work will be completed during this year.

5.5 ROAD INFRASTRUCTURE DEVELOPMENT IN ORAGADAM INDUSTRIAL

In order to improve the road and bridge infrastructure facilities required for the increasing industries in Sriperumbudur area of Kancheepuram District, this Government has formulated Oragadam Industrial Park area Development Programme at a cost of Rs.300 Crores and is implementing the project through Tamil Nadu Road Infrastructure Development Corporation.

Under the first phase of this scheme, the following works are in progress.

Sl. No.	Name of road	Length in Km.
1.	In SH-57, (Singaperumalkoil – Oragadam road) - 24.60 Km widening to four lane with centre median and improving.	12.60
2.	In SH-57 (from Oragadam to Sriperumbudur) widening to four lane with centre median and improving (including construction of 2.40 Km. length of bypass to Ponthur Village).	12.00
3.	In SH-48 (from Vandalur to Oragadam) widening to four lane with centre median.	16.60
4.	In SH-48 (from Oragadam to Walajhabad) widening to four lane with centre median.	16.80
	Total	58.00

Of these 29 Km length works have been completed. Out of the total no.of 166 culvert works 113 works have been completed. The bridge costing Rs.23 crores at the Oragadam road junction has been commenced.

In 2009-10 a sum of Rs.145.38 crores has been spent for these works including land acquisition cost. Balance road works will be completed this year.

In the second phase, the works of six laning the Oragadam – Sriperumpudur road would be taken up in the current year on completion of land acquisition.

A provision of Rs.165 Crores has been made during current year for these works.

5.6. FORMATION OF BYEPASSES TO TOWNS

In order to regulate the vehicular traffic and to ease the traffic congestion it is essential to form Bypasses / Radial roads. Hence this Government gives more attention to form such roads. These are taken up in two phases. In the first phase land acquisition works and in the second phase formation of road works are taken up.

As announced during the past years, the work of formation of 3 Km length of bypass to Cheyyar town in Tiruvanmalai District has been completed at the cost of Rs.4.40 crores.

5.6.1. Ongoing bypass works

The works of formation of bypasses to the following 6 towns have been commenced in 2009-10 and are in progress

- Bypass to Ettukudi town in Nagapattinam District for a length of 1.60 Km at a cost of Rs.1.55 crores.
- Bypass to Kancheepuram town for a length of 8.50 Km at a cost of Rs.34.18 crores.
- Bypass to Thuraiyur town in Trichy District for a length of 3.60 Km at a cost of Rs.9.45 crores.
- Bypass to Elayankudi town in Sivagangai District for a length of 2.60 Km at a cost of Rs.3.50 crores.
- Bypass to Vandavasi town in Tiruvanmalai District for a length of 2 Km at a cost of Rs.3.50 crores.
- Ring road to Hosur town in Krishnagiri District for a length of 5 Km at a cost of Rs.6 crores.

5.6.2. Erode ring road

The Government accepted in principle to form a ring road to Erode, in to phases i.e., to form 14.80 Km length of road from Kokkarayanpet of Namakkal District to Thindal of Erode District in the first phase and to form 9 Km length of road from Sathy road to thindal in the second phase and allocated Rs.22 crores for land acquisition. Land acquisition works are in progress.

As the first stage of ring road, the works of formation of 2.20 Km length of road from Kokkarayanpet to Karur road junction and construction of highlevel bridge across Cauvery river connecting Kokkarayanpet – Lakkapuram Boat yard at a cost of Rs.14 crores have been commenced.

Land Acquisition for formation of road from Erode-Karur road junction to Thindal via Kangeyam Erode- Perundururai road for a length of 12.60 Km (Km 2/2- 14/8) is in progress.

5.6.3. Bypasses for which Land acquisition is in progress

Land acquisition works for the formation of bypasses to the following 6 towns are in progress.

1). Thiruthuraipoondi

An amount of Rs.21 lakhs has been sanctioned for land acquisition for formation of bypass to Thiruthuraipoondi town in Thiruvarur District for a length of 3 Km branching at Km 39/2 of Velankanni-Thiruthuraipoondi road and joining at Km 66/6 of Mayiladuthurai–Thiruthuraipoondi road. Land acquisition to an extent of 7.70 Hectares in 2 villages is in progress.

2) Perambalur

An amount of Rs.5.36 crores has been sanctioned for land acquisition for formation of bypass to Perambalur town in Perambalur District for a length of 9 Km branching at Km 264/10 of NH 45 and joining at Km 32/4 of Thuraiyur- Perambalur road Crossing Athur- Perambalur road at Km 49/6.

Land acquisition to an extent of 56.19 Hectares in 4 villages is in progress.

Special staff were appointed to attend the Land Acquisition works.

3) Pattukottai

An amount of Rs.2.78 crores has been sanctioned for land acquisition for formation of bypass to Pattukottai town in Thanjavur District for a length of 7.40 Km branching at Km 52/0 of Pattukottai-Muthupettai road and joining at Km 43/4 of Thanjavur - Pattukottai road crossing Kumbakonam-Mayiladuthurai- Madhukur-Athirampattinam road at Km 41/4.

Land acquisition to an extent of 20.01 Hectares in ten villages is in progress.

4) Thanjavur phase II

An amount of Rs.14.41 crores has been sanctioned for land acquisition for formation of bypass to Thanjavur town in Thanjavur District in second phase for a length of 14.30 Km branching at Km 89/6 of NH 67 and joining at Km 64/10 of Perambalur Manamadurai road.

Land acquisition to an extent of 60.22 Hectares in 10 villages is in progress.

5) Dharapuram

An amount of Rs.63 lakhs has been sanctioned for land acquisition for formation of bypass to Dharapuram town in Tiruppur District for a length of 4.80 Km branching at Km 31/6 of Palani- Dharapuram road (via) Alangiam to join at Km 72/4 of Mettur – Palakkanuthu- Oddancharthram -Dharapuram-Tiruppur road and again branches at Km 75/4 of the same road to join at Km 58/0 of Pollachi- Dharapuram road.

Land acquisition to an extent of 9.85 Hectares in four villages is in progress.

6) Rasipuram

An amount of Rs.4.18 crores has been sanctioned for land acquisition for formation of bypass to Rasipuram town in Namakkal District for a length of 13.68 Km branching at Km 36/8 of Malliakarai-Rasipuram road to Km 50/2 of the same road.

Land acquisition to an extent of 39.04 Hectares in 10 villages is in progress.

Formation of road work will be taken up on completion of Land Acquisition.

5.7. PROJECTS IMPLEMENTED WITH NABARD LOAN ASSISTANCE

337 Km length of road works and 175 bridge works sanctioned under NABARD Projects No- 29, 51, 85, 91, 103, 110, 121, 122 and 125 at the cost of Rs.374 crores with the NABARD Loan Assistance are being carried out through NABARD & RR wing.

5.7.1. Improvements to Major District Roads and Other District Roads.

Under this scheme, the following 3 bridge works were completed at the cost of Rs.7.99 Crores in 2009-10.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Thiruvallur	Construction of bridge across Kosasthalayar river at km.0/2-4 of Nagari Pallipattu road to Kesavarajakuppam (ODR)	Punniyam	4.38
2	Thiruvallur	Construction of bridge across coom river at km. 0/2-4 of Tirur Sevapet -Kilanur road. (ODR)	Aranvaayal	3.70
3	Villupuram	Construction of Bridge across Sankarabarani river at km. 0/8 of Modaiyur road (ODR)	Modaiyur	1.96

Apart from this, the Government have accorded administrative sanctioned for the 260 Km length of road improvement works in 14 districts at a cost of Rs.113 Crores under the NABARD Project No.125. Of which,18.70 Km length of roads at an expenditure of Rs.42.14 crores were completed during the year 2009 -10.

The expenditure for this in 2009-10 is Rs.50.13 Crores.

A provision of Rs 89.01 Crores has been made for this scheme in the current year.

5.7.2 Construction of bridges in Government roads

Spill over works of construction of 48 bridge works costing Rs.74 crores under the scheme of construction of bridges in Government roads (NABARD Project No -91) were taken up for execution in 2009-10. Of these, 21 bridge works have been completed in 2009-10 at the cost of Rs.33.28 Crores. Of these, the major bridge works are as follows:-

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Tuticorin	Construction of Bridge across Uppanar at Km 5/2 of Thoothukudi - Tiruchendur road (ODR)	Veeranayak kanthattu	5.28
2	Virudhu nagar	Construction of bridge across Kattar at Km.30/2-4 of SH - 42 (Srivilliputhur-Sivakasi-Parthibanoor Road)	Servai karanpatti	2.30

Out of the remaining 27 bridge works following 24 works are in progress.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Tuticorin	Construction of Bridge across Thamiraparani river at Km. 0/2 of SH – 40 (Srivaikundam Girder bridge road branching from Km. 30/2 of Thirucendur - Ambai - Tenkasi - Senkottai road)	Srivai kundam	17.16
2	Tirunelveli	Construction of bridge across Thambiraparani River at Km. 3/0 - 3/4of Cheranmadevi River Road (ODR)	Cheran madevi	8.81
3	Tirunelveli	Construction of bridge across Odai at Km. 65/6 of Rajapalayam - Sankarankovil - Tirunelveli Road (ODR)	Azhagiapan diapuram	3.12
4	Erode	Construction of Bridge across Bhavani river connecting Km 2/8 fo Ikkarai - Thathpallai - Velliyampalayam road and Km 1/6 of Mudukkandurai - Erankattur road (ODR)	Bhavani sagar	4.28
5	Thiruvallur	Construction of Bridge across Nandhi river at km.84/10 of SH-3 (Chittoor - Thiruthani Renigunta Road)	Thiruthani	3.03

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
6	Thiruvallur	Construction of Bridge across Nandhi river at km.42/4 of SH – 54 (Chittoor - Thiruthani Road)	Kora mangalam	2.75
7	Trichy	Construction of bridge across Ayyaru river at Km.18/6 of SH – 30 (Musiri - Thuraiyur - Athur road)	Kannanur	2.73
8	Thiruvarur	Construction of bridge across Koraiyar River at Km.38/8 of SH – 63 (Thanjavur - Mannargudi - Thiruthuraipoondi - Vedaranyam - Kodyakkarai road)	Kasankulam	2.59
9	Thiruppur	Construction of Bridge across Noyyal river at Km128/4 of SH – 37 (Mettur - Oddanchatram - Dharapuram - Erode road)	Pazhaiya kottai	2.58
10	Villupuram	Construction of Bridge across Komugi river at Km. 1/6 of SH – 6 (Kallakurichi - Thiruvannamalai Road)	Salai Mamandur	2.39
11	Villupuram	Construction of Bridge across Mani Nadhi at Km.18/4 of SH No. 6 (Kallakurichi Thiruvannamalai Road)	Sankara puram	2.37
12	Villupuram	Construction of Bridge across Muktha Nadhi at Km. 9/2 of SH – 6 (Kallakurichi – Thiruvannamalai Road)	Moorar palayam	2.36

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
13	Virudhu nagar	Construction of Bridge across Mudangiyar at KM. 8/4 of SH – 41 (Raja palayam-Sankarankovil-Tirunelveli Road)	Raja palayam	2.37
14	Vellore	Construction of bridge across Odai at Km.88/10 of SH - 58 (Sadras-Chengalpet-Arakonam-Thiruthani road)	Poipakkam	0.76
15	Vellore	Construction of bridge across Odai at Km.89/6 of SH – 58 (Sadras-Chengalpet-Arakonam-Thiruthani road)	Poimuchi	0.71
16	Thiruvanna malai	Construction of Bridge across Pambar at Km.26/8 of Thiruvannamalai-Thaipadi Road (MDR)	Mala manjanur	1.77
17	Salem	Construction of Bridge across Odai at KM 86/6 of SH – 30 (Musiri-Thurayur- Athur Road)	Thandavara yapuram	1.16
18	Salem	Construction of Bridge across Thirumanimutharat KM 0/8 of SH – 18 (Salem-Thirupathur-Vaniyambadi Road)	Ayothiapattinam	0.60
19	Krishnagiri	Construction of bridge across Surplus water from Thali Eri at Km25/8 of Hosur-Thali road (MDR)	Thali	1.57

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
20	Erode	Construction of Bridge across Kalingarayan Voikal at KM 0/4 of Unjalur Railway station to Erode-Kangeyam Road (ODR)	Unjalur Railway station	0.31
21	Erode	Construction of bridge across Kilbhavani Pasana voikal at Km.11/8 of Chennimalai-Arachalur-Kodumudi road (MDR)	Arachalur	0.68
22	Karur	Construction of bridge across New Kattalai mettu voikal at Km.6/10(ii) of SH 71 (Musiri- Kulithalai Road) to Pudukottai-Alangudi-Sedhubavachatram road	Kulithalai	0.30
23	Pudukottai	Construction of bridge across Agni river at Km.3/2 of Karupattipatti-meenampatti road to at Km.1/6 Thuvar road (ODR)	Thuvar	1.46
24	Naga pattinam	Construction of bridge across Pravidan river at Km 3/8 of SH- 67 (Nagoore-Nannilam-Nachiyar koil road)	Panangudi	1.00

Balance three works given below will be taken up for execution during the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Kancheepuram	Construction of bridge across bukkingham canal at Km 0/8 of SH – 58 (Sadras-Chengalpet-Kancheepuram-Arakonam-Thiruthani road)	Sadras	4.95
2	Karur	Construction of bridge across Kattalai mettu voikal at Km 6/10(i) of SH – 71 (Musiri-Kulithalai Road to Pudukottai-Alangudi-Sedhubavachatram road)	Kulithalai	0.49
3	Nilgiris	Construction of bridge across Mayaru at km.29/2 of Thalaikuntha-Kallatti-Theppakadu road (ODR)	Theppakadu	1.47

A provision of Rs.27.21 crores has been made for this scheme in the current year.

Moreover, in 2009-10, under NABARD Project No 121 and 122, 90 bridge works costing Rs.129.00 crores were taken up in State Highways, Major District Roads and Other District Roads. Of this, 65 bridge works have been completed at the cost of Rs.46.95 crores in 2009-10.

Out of the remaining 25 bridge works, following 21 works are in progress. All these will be completed in the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Tuticorin	Constructicon of bridge across Vaippar river at KM. 73/4-8 of SH No. 44 (Paruvakudi - Kovilpatti - Vembar road)	Vilathikulam	13.65
2	Dindigul	Construction of a bridge across Vaigai at Km 8/6 of Vathalagundu - Usilampatty road (MDR)	Kannapatti	5.51
3	Ariyalur	Construction of bridge across Maruthaiyar at K.M.8/8-10 of Ariyalur - Subbarayapuram road (ODR)	Pallakrishna puram	5.37
4	Erode	Construction of bridge at Km 0/10 of Vairamangalam- Thalavaipettai road across river Bhavani (Pt.union road)	Vaira mangalam	5.34
5	Peram balur	Construction of bridge across Kallar at K.M.8/10 and 9/2 of Ranjangudi - V.Kalathur - Kaikalathur road (ODR)	V.Kalathur	4.13
6	Thiruppur	Construction of bridge across Nallathangal River at Km 63/10 of Pollachi - Dharapuram - Karur road. (SH No. 21)	Karaiyur	2.95

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
7	Krishnagiri	Construction of Bridge across Thenpennai river at Km10/2 of Shoolagiri - Rayakottah road (ODR)	Rayakottah	2.89
8	Trichy	Construction of a bridge across Karaipottanaru at K.M.11/8 of Thottiyam - Kattuputhur road (MDR)	Anaikalpatti	2.76
9	Villupuram	Construction of bridge across Pambai Nadhi at km 2/2 of of Seshaganur - Andipalayam road (ODR)	Seshaganur	2.70
10	Virudhu nagar	Construction of Bridge across Arjuna river at Km 9/2 of Ammathur - Lakshmiapuram road and improvements to from Km. 4/0-9/2 (ODR)	Ammathur	2.47
11	Tirunelveli	Construction of bridge across Chittar river at Km 1/4 of Vadakku Chezhiyanallur-Therku Chezhiyanallur road.(Pt.union road)	Vadakku Chezhiya nallur	2.44
12	Trichy	Construction of bridge at Km 8/10 of Musiri Pulivalam road across Ayyar river (MDR)	Velakka natham	2.44
13	Thiruppur	Construction of bridge across Noyyal River at Km 40/2 - 40/4 of SH – 81 (Gobi - Uthukuli - Kangayem road)	Uthukuli Railway Station	2.17

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
14	Karur	Construction of bridge across Nangangi River at Km 0/2 of Aravakurichi-Pungampadi road (ODR)	Aravakurichi	2.10
15	Cuddalore	Construction of bridge across Visur river at Km.13/2 of Kadampuliyur-Sendhanadu road (via) Perperiyankuppam (ODR)	Visur	1.58
16	Villupuram	Construction of bridge across Odai at Km.3/4 of Chinnasalem – Koogaiyur – Pedhasamudram road (ODR)	Pedhasamudram	0.54
17	Pudukottai	Construction of bridge across Thalaivari odai at Km44/2-4 of SH – 99 (Thirukattupalli-Sengipatti road)	Veppampatti	1.67
18	Pudukottai	Construction of bridge across Kattar at Km 4/8 of Mathangal-Nadupatti road (ODR)	Namburanpatti	1.75
19	Dindugul	Construction of bridge across Kattar at Km 8/2-4 of Koshan-Kilavarai road (ODR)	Kilavarai	1.16
20	Virudhunagar	Construction of bridge across Odai at Km 2/2 of Melamadai-pazhavanatham road (ODR)	Kallupatti	0.96
21	Virudhunagar	Construction of bridge across Odai at Km. 0/6 of Madhiyasenivelur road (ODR)	Madhiyasenai	0.41

Balance four works given below will be taken up for execution in the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Thiruvannamalai	Construction of Bridge across Cheyyar river at Km.2/8 of Kazhiyur - Athi road (ODR)	Kazhiyur	13.24
2	Thiruvannamalai	Construction of bridge across Kamandalanaganathi at Km 2/8-10 of Kannamangalam Arni road to Arni padavedu road (via) Kunnathur (ODR)	Kunnathur	7.30
3	Thiruvannamalai	Construction of bridge at km22/8 of Tiruvannamalai - Thanipadi Road (MDR)	Kolamanjur	6.65
4	Thiruvannamalai	Construction of bridge across Kamandalanaganathi at km.1/4 of Athimalaipattu Road (ODR)	Athimalaipattu	6.21

A provision of Rs.75 crores have been made for this scheme in the current year.

5.7.3. Rural Roads Scheme

Under this scheme, Panchayat and Panchayat Union Roads providing connectivity to habitations with a population between 500-1000 are taken up for improvements to ODR standards. In 2009-10, the spill over works of 53 Km length of roads and 19 bridges pertaining to the projects 103 and 110 were taken up at a cost of Rs.33.crores. Of these, all the road works and 13 bridge works have been completed at the cost of Rs.15.31 crores. By this, 57 villages have got B.T road connectivity.

Completed bridges are detailed below:-

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Tiruvarur	Construction of bridge across old Kilaithangiyar at Km.1/8, New Kilaithangiyar at Km.3/10 (i) & Maraika Koraiyar at Km 3/10 (ii) of the road Thillaivilagam - Therkukadu - Melathondiakadu Road Including improvements to the road from Km.1/7-4	Thillaivilagam – Therkukadu	2.41
2	Tirunelveli	Construction of a bridge across Kadanathi at KM. 0/2 of Birammadesam - Adaisani road.	Biramma desam	2.29
3	Thiruppur	Construction of a Bridge across Amaravathi connecting Edaikkadu Theevu.	Edaikkadu	2.02

The remaining 6 bridge works will be completed in the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Tiruvarur	Construction of bridge across Vettar river at Km 0/10 of Odachery - Then Odachery road including improvements to the road Km 0/0-1/6	Odachery	5.34
2	Kancheepuram	Construction of bridge across Adyar between Tharaipakkam Anakaputhur	Tharai pakkam	4.70
3	Trichy	Construction of bridge across Ayyaru river at Km.2/0 Neyveli-Veeramanipatti road	Neyveli	3.31
4	Trichy	Construction of Bridge across Ayyaru river at Km.0/8 of Gunaseelam - Kallur road.	Kallur	2.75
5	Thirupur	Construction bridge across Amaravadhi river between Athukalpudur and Nallagoundan pudur	Kulathu palayam	1.29
6	Kaniya kumari	Construction of bridge across Valliyar at Km.0/2 of Marunthukottai junction to Thanthavilai road	Thanthavilai	0.64

A provision of Rs. 16.05 crores has been made for this scheme in the current year.

5.7.4 Providing B.T Road Connectivity to Adi Dravidar Habitations

Under the Scheduled Caste Sub Plan, the roads connecting the habitations where the Adi-Dravidar population is more than 50% of the total population are improved.

In 2009-10, spill over works of 5 km length of road works and 6 bridge works under the NABARD Project 103 & 110 of have been completed in 2009-10 at the cost of Rs.3.09 crores.

By this, 19 villages have got B.T road connectivity. This scheme has been fully implemented with this.

5.7.5 Bus route improvement scheme

Under this scheme, Panchayat and Panchayat Union roads where buses are plying for more than three years are improved has B.T. Roads to Other District Road standards. In 2009-10, spill over works of 19 Km length of road works and 9 bridge works under the project 110 were taken up for execution at a cost of Rs.15 crores. Of which, all road works and 8 bridge works have been completed in 2009-10 at the cost of Rs. 9.61 crores. The remaining 1 bridge work given below is in progress. This bridge work will also be completed in the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Villupuram	Construction of bridge across Koraiyar river at Km.3/6-9 of Kongarayanur - T.Edayar road (via) Paiyur	Paiyur	9.83

A provision of Rs. 5.05 crores has been made for this scheme in the current year.

5.7.6 Construction of bridges in Cauvery Delta area with NABARD loan

Under this scheme, Government sanctioned construction of 59 bridges including 4 major bridges and improvements to 417 Km length of Sugar Cane roads at a cost of Rs. 204.73 crores in Cauvery Delta Districts and other districts upto 2008. Of these, 47 river bridges and 412 Km length of road works have been completed at an expenditure of Rs. 71.15 crores. The details of balance works excluding the deleted works of 3 bridges and 5 Km length of road works are as follows:-

Bridge works likely to be completed in the current year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Thanjavur	Bridge across Vettar at Km 10/4 of Saliyamanagalam – Papanasam road.(MDR)	Thirukaru kavur	2.95
2	Thiruvarur	Bridges across Vettar at Km 29/4 of Kumbakonam – Kodavasal- Koradacheri- Mavoor road. (MDR)	Korada cherry	3.08
3	Thiruvarur	Bridge across Koraiyar at Km 9/2 of Mannarkudi – Tiruvarur road. (MDR)	Koraiyar	1.85

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
4	Thiruvarur	Bridge across Sullanaru of Km 24/4 of Thittai – Dharasuram road. (MDR)	Aavur	1.61
5	Thiruvarur	Bridges across Vellayaru at Km 14/8 of Mannarkudi – Tiruvarur road (MDR)	Velukudi	1.50

Four Major bridge works to be completed in the ensuing financial year

1. Construction of bridge across Cauvery River connecting Vangal in Karur District and Mohanur in Namakkal District at an estimated cost of Rs.36.30 crores is in progress.
2. Construction of bridge across Kollidam river connecting Neelathanallur in Thanjavur District and Madhanathur in Ariyalur District at an estimated cost of Rs. 36.50 crores is in progress.
3. Construction of bridge across Kollidam river connecting Muttam in Cuddalore District and Manalmedu in Nagapattinam District at an estimated cost of Rs. 48.85 crores is in progress.
4. Construction of bridge across Vaigai river connecting Paramakudi and Emaneswaram in Ramnad District at an estimated cost of Rs. 11.65 crores is in progress.

A sum of Rs.13.52 crores has been spent for this scheme in 2009-10.

A provision of Rs. 60.14 Crores has been made for this scheme in this year.

5.8 Inner Ring Road in Chennai City

The Taramani link road which starts from Km 3/0 of Rajiv Gandhi Salai to Velachery bus stand for a length of 3.60 Km has been taken up for widening the length of to six lane with World Bank assistance. The 5 Km length of road from Velachery Railway Station (MRTS) to St.Thomas Mount Defence Officers Training Academy including 350m length of bridge work across Adambakkam Lake costing Rs. 67.91 crores are in progress.

A sum of Rs.9.71 crores has been spent for this scheme in 2009-2010.

A provision of Rs.18.85 crores has been made for this scheme in this year.

5.9. Madurai Radial Roads

Under CRIDP sanction was accorded for Madurai Radial Roads in second phase comprising of 14 road works for 123.20 Km length at a cost of Rs.70.60 crores during 2007-08.

An expenditure of Rs.6.95 crores has been made and all works have been completed during 2009 – 10.

5.10. Construction of ROB / RUB across level crossing under Railway Works Programme

There are 181 Road Over Bridges and 58 Road Under Bridges in the Government roads. All these bridges are maintained by Railways and Highways Department.

The construction of Road Over / Under Bridges in lieu of existing level crossings on Government roads are undertaken on priority basis when Train Vehicle Units (TVU) exceed One Lakh per day. The State Government and Ministry of Railways share the cost equally for construction of Railway Over / Under Bridges including approach and service roads.

During the Five Year period from 2001-2006, 7 Road Over Bridge / Road Under Bridge works were sanctioned at a cost of Rs.168.35 crores under Railway works Programme. During the years from 2006 to current year, the Government have accorded administrative sanctioned for construction of 104 Road Over Bridge / Road Under Bridges at a cost of Rs.2,246.50 crores. Details are given below:-

Year	No. of Bridges	Cost (Rs. in Crores)
2001-02	--	--
2002-03	--	--
2003-04	2	20.92
2004-05	1	38.50
2005-06	4	108.93
2006-07	25	409.65
2007-08	42	876.70
2008-09	23	560.94
2009-10	3	200.68
2010-11	11	198.53
TOTAL	111	2414.85

From 2001 to 2006, Road Over Bridge / Road Under Bridges at 9 Railway level crossings were completed at the cost of Rs.119.80 crores. But, from 2006 to 2010, the following Road Over Bridge / Road Under Bridges in 22 Railway level crossings have been completed at the cost of Rs.271 crores as detailed below.

Details of ROB / RUB completed during 2006-2010

Sl. No.	District	LC. No. / Location of Bridge	Cost (Rs. in Crores)
1	Vellore	90, Tirupathur	6.50
2	Tuticorin	437, Kovilpatty	7.00
3	Trichy	85, Palakkarai, Trichy	11.00
4	Karur	37, Vengamedu, Karur	12.50
5	Salem	9, Omalur, Salem	10.00
6	Coimbatore	145, Ondiputhur, Coimbatore	16.50
7	Madurai	360, Kodai Nagar, Madurai	9.50
8	Coimbatore	20, Valankulam, Coimbatore	16.00
9	Dharampuri	100, Morappur, Dharampuri	9.50
10	Tiruppur	128, Uthukkuli, Tiruppur	8.55
11	Tiruppur	129, Thimmanaickan palayam	7.26
12	Thiruvallur	10, Kathivakkam	23.00
13	Madurai	Ellis Nagar	22.00
14	Vellore	64, Gudiyatham	9.10
15	Salem	114, Sivathapuram	5.20
16	Salem	116, Magudanchavadi	8.75
17	Vellore	33, Arakkonam	13.37
18	Kancheepuram	13, Maduvangarai, Guindy	21.65
19	Cuddalore	202, Chidambaram	16.97
20	Vellore	91, Thirupathur, Moolakaranpatti	9.00
21	Tuticorin	485, Milavittan	11.65
22	Kancheepuram	19, Meenambakkam	16.00
		TOTAL	271.00

Further,30 works are in progress. For 4 works tenders are under scrutiny. Of the balance works, 6 works are in NH stretches maintained by NHAI and hence, NHAI has been requested to commence these works. One work is being under taken by Chennai Corporation.

Balance works are under various stages viz. obtaining approval of railways for GAD, preparation of Design and finalization of land acquisition formalities.

A sum of Rs.191.70 crores has been spent for this scheme in 2009-10.

A provision of Rs. 649.98 Crores has been made for this scheme in this year.

5.11. HUDCO Loan Assistance Scheme for Bridges

Sanctioned was accorded for construction of 61 bridges at a cost of Rs.60 crores with HUDCO financial assistance. This scheme was being implemented with HUDCO funds till 2004 -05 and thereafter works are being carried out from State Government funds.

Of these, 54 bridges have been completed at the cost of Rs.47.84 crores. 2 bridge works have been deleted and the balance 5 bridge works given below will be completed in this year.

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
1	Thanjavur	Bridge across Kudamurutti river in Manathidal – Valappakudi road (Pt. road)	Manathidal, Valappa kudi	4.41

Sl. No	District	Name of Work	Location	Cost (Rs.in Cr.)
2	Thiruvarur	Bridge across Arasalar at km 20/6 of SH 23(Mayiladuthurai – Thiruthuraipoondi road)	Poon thottam	4.30
3	Thiruvarur	Bridge across Mudikondan river at km 26/10 of SH 23(Mayiladuthurai – Thiruthuraipoondi road)	Sannasi nallur	2.33
4	Naga pattinam	Bridge across Mudikondan river at Km 12/10 of SH 67 (Nagoor – Nannilam – Nachiarkoil road)	Tiru marugal	2.16
5	Naga pattinam	Bridge across Veeracholan river at km 6/4 of of Kuthalam - Komal road.(ODR)	Komal	1.07

An expenditure of Rs.8.58 crores has been incurred during 2009-10.

Fly Over at Tirunelveli

Sanction was accorded for construction of a fly over in Tirunelveli Bypass near the Statue of Thiru. Chellapandian, ex - speaker of Tamil Nadu Legislative Assembly, at a cost of Rs. 16.40 Crores and the work is in progress.

A sum of Rs.10.77 crores was spent for this work in 2009-10. This work will completed in July, 2010.

A provision of Rs. 9.50 Crores has been made for this scheme in the current year.

5.12. Tiruppur Infrastructure Development scheme:

In order to reduce the traffic congestion caused by ever increasing vehicular traffic in Tiruppur town, the Government sanctioned Rs. 70 crores for Tiruppur ring road, radial roads connecting the town and bridge works. This includes road improvement works for a length of 99 Km, 2 Railway Over Bridges and 9 River Bridges.

Of these, Road works were completed in full.

Out of 9 bridge works, 5 works were completed at the cost of Rs.6.70 crores. Details are given below:-

Sl. No	Name of Work	Location	Cost (Rs.in Cr.)
1	Bridge across Nallar at km 4/8 of SH 19 (Tiruppur – Palladam road)	Thirumurugan poondi	1.90
2	Bridge across Noyyal River at km 19/4 of SH 19 (Tiruppur – Palladam road)	Chinnakarai	1.30
3	Widening the bridge across Nallar at km 4/6 of Tiruppur – Kunnathur road (MDR)	Picham palayam	1.20
4	Bridge across Nallar at km 1/8 of Tiruppur – Vijayamangalam road (ODR)	Coolipalayam	2.00
5	Widening the culverts at km 8/4,15/8, 17/4,18/2& 21/6 of SH 19 (Tiruppur-Palladam)	In Tiruppur Corporation limit	0.30

Bridges at Km 4/8 and 19/4 of SH No.19 (Avinasi – Tiruppur – Palladam road) were opened to Public on 21.10.2009 by Hon'ble Minister for Finance under the presidentship of Deputy Chief Minister.

Balance 4 bridge works given below will be completed during this year.

Sl. No	Name of Work	Location	Cost (Rs.in Cr.)
1	Bridge across Noyyal River near Chikkana College(ODR)	Anaipalayam	2.50
2	Bridge across Noyyal River at Km 2/4 of Nallur-Kasipalayam road to Vijayamangalam.(ODR)	Kasipalayam	2.50
3	Bridge across Noyyal river High Level Bridge at Km 12/10 of SH 19 (Avinashi -Tiruppur - Palladam Road).	Valarmathi	1.80
4	Widening High Level Bridge across Nallar at Km 11/2 and culverts at Km.1/8, 4/2 of Trippur - Kunnathur road (MDR).	Perumanallur	0.80

Out of the 2 Road Over Bridges at railway level crossings, 1 Road Over Bridge at Coolipalayam has been taken up under Railway Works Programme and tenders are under scrutiny. The Road Over Bridge near Chikkanna College will be taken up for execution during this year.

5.13 Sugar Cane Road Development Scheme

The cess fund collected from sugar mills are utilised for formation of roads from sugar cane growing areas to sugar mills. The Government accorded administrative sanction for 50 road works for 90 Km length at a cost of Rs.25.61 crores, under this scheme in 2009-10.

An expenditure of Rs.4.93 crores has been incurred during 2009-10.

A provision of Rs.12.69 crores has been made for this scheme in the current year.

5.15 National Highways Projects

The total length of National Highways in Tamil Nadu is 4873 Km, in which the improvement, maintenance and renewal works in 1613 Km length of roads, are being taken up by the State Government from the funds allotted by the Government of India. The National Highway Authority of India (NHAI) is taking up improvement works in 3260 Km length of National Highways.

There are 97 Major bridges, 400 Minor bridges, 45 Railway Over bridges, 20 flyovers, 12 Pedestrian subways and 7 vehicular underpasses in National Highways stretches in Tamil Nadu.

5.16. National Highways Projects implemented through Government of Tamil Nadu.

From the year 2001 to 2006 at a cost of Rs.622 crores, 2169 Km length of roads have been improved and 46 bridges have been built with the funds of Government of India under various schemes.

After this Government assumed office, from 2006 to 2010, at a cost of Rs.613 crores, 1307 Km length of roads have been improved and 22 bridges have been built with the funds of Government of India.

Annual Plan Works

The Government of India has accorded administrative sanction for 31 works costing Rs.227 crores under the annual plan 2009 - 10 for the improvement of National Highways 1613 kms which are under the maintenance of State Government. This includes 29 road works costing Rs.218 crores and 2 bridge works comprising 4 Minor bridges costing Rs.9 crores.

Under this scheme, 225 Km length of road works costing Rs.152 crores and one high level bridge across Kottakarai river in NH210 (Trichy – Karaikudi – Ramnad road) at Sanavelli village in Ramnad District costing Rs.12.8 crores have been completed and opened on 03.10.2009 for the use of the public by the Hon'ble Home Minister of Government of India.

Moreover, In NH 208 (Shencottah – Tenkasi - Tirumangalam road) 5 minor bridge works in Kattalaikudiyirupu, Idaikal, Puliyankudi, Vasudevanallur in Tirunelveli district and 5 minor bridge works in Sethur and Rajapalayam in Virudhunagar district and in NH 209 (Dindigul-Coimbatore road) one minor bridge at Ganapathy in Coimbatore District have been completed at the cost of Rs.4.2 crores.

A sum of Rs.169 crores was spent for this scheme in 2009-10.

The balance works of 69 road works to the length of 330 Km costing Rs.276 crores and 9 minor bridge works costing Rs.14 crores are in progress. These works will be completed in the current year.

Maintenance works

The Central Government allotted a sum of Rs.33 crores for maintenance work in the National Highways in the year 2009-10. Utilising this allotment fully, 59 Km length of National Highways have been renewed.

5.17 Other Schemes implemented by National Highways Wing

5.17.1 Revamped Central Road Fund Scheme

Government of India has set-up Central Road Fund in the year 2000 with the accruals from cess levied on the consumption of Petrol and Diesel.

Under this scheme, Government of India has accorded administrative approval for 1,235 Km length of road works and 31 bridge works amounting to Rs.594 crores during the period from 2005-2010. In this, 726 Km length of road works and 13 bridge works have been completed at the cost of Rs.381 crores upto March 2010. Balance 480 Km length of road works and 18 bridge works costing Rs.204 crores are in progress. These works will be completed during this year.

Further, the Government of India has accorded administrative approval on 31.03.10. for 196 Km length road works costing Rs.147.47 crores under this scheme. The above works will be taken up during this year.

A provision of Rs 100 crores for this scheme has been made in the current year

5.17.2 Economic Importance and Inter State Connectivity Scheme (E&I Scheme)

A) Economic Importance Scheme (50% Central Government Share: 50% State Government Share)

Under this scheme, 24.80 Km length of road works costing Rs.9.53 crores were taken up during the year 2009-2010 and of these 8.80 Km length of road works have been completed. The balance works will be completed in the current year.

Further, Government of India has accorded administrative approval on 08.02.2010 for the new work of widening the 30 Km length of road branching from Salem-Cochin road (NH47) at Perumanallur and joining at Nagapattinam Gudalur Mysore road (NH67) near Avinashipalayam, to 10m width and strengthening the same at a cost of Rs.31.79 crores. This work will be completed in the current year.

A sum of Rs4.80 crores has been spent for this scheme in the year 2009-10.

A provision of Rs.10.88 crores has been made for this scheme for the current year.

B) Inter State Connectivity Scheme (100% Central Government Share)

Under this scheme, 17 Km length of road works and the work of Construction of new bridge across river Palar in Vellore City costing Rs19.48 crores were taken up in the year 2009-2010 and of these 1 bridge work and 10 Km length of road works have been completed. Balance road work will be completed in the current year.

A sum of Rs11.71 crores has been spent for this scheme in the year 2009 -10.

A provision of Rs 16.17 crores has been made for this scheme for the current year

5.17.3 Bharat Nirman Scheme

The Government of India has launched this scheme for the development of rural roads.

Under Phase I, 1,286 Km length of road works were taken up in the Other District Roads at a cost of Rs.254 crores. Out of this, 32 Km length of road works costing Rs.7 crores have been deleted. Further, 743 Km length of road works costing Rs.152 crores have been completed till date. Balance 511 Km length of road works will be completed in the current year.

Under Phase II, 246 Km length of road works in Other District Roads have been taken up at a cost of Rs.49 crores. All these works will be completed in the current year.

5.17.4 Western Ghats Development Programme

Under this scheme, 10.20 Km length of road works in Tiruppur and Dindigul Districts were taken up at a cost of Rs.100 lakhs during the year 2009-10 and the works have been completed at the cost of Rs.91 lakhs.

A provision of Rs. 1 crore has been made for this scheme for the current year.

5.17.5 Hill Area Development Programme

Under this scheme, 11.40 Km length of road works in Nilgiris District were taken up at a cost of Rs.331 lakhs during the year 2009-10 and of these 4.60 Km road works costing Rs.114 lakhs have been completed. The balance works will be completed in the current year.

A provision of Rs.2.64 crores has been made for this scheme for the current year.

5.18 Projects executed by National Highways Authority of India (NHAI)

To improve, maintain and manage National Highways, the National Highway Authority of India (NHAI) was formed by Government of India through Indian National Highways Authority of India act 1988 presented in the Parliament and came in to existence from February 1995. The NHAI is executing National Highways Development Programmes approved by Government of India in seven phases. Apart from this, roads, flyovers, under passes are constructed and improved under Port Connectivity Project and Other Special Projects.

National Highways 4, 5, 7, 7A, 45, 45B, 45C, 46, 47,47B, 49, 66, 67, 68, 205, 210, 226 & 227 in Tamil Nadu are improved by Government of India through NHAI in association of the State Government.

As far as the implementation of NHDP scheme is concerned it is the responsibility of Government of India to approve and finance the works.

State Government extends its cooperation and assistance to NHAI in the matters of land acquisition, shifting of utilities and executing the projects based on state support agreement.

Selection of suitable contractors to execute the projects, executing the works and maintenance are the responsibility of NHAI.

Works completed up to March 2006

Since the formation of NHAI till the month of March, 2006, 414 Km length of two lane roads were widened to four lane roads, 19 Km length of Chennai bypass was widened to two lane road in stage-1 and thus a total of 433 Km length of roads have been upgraded at the cost of Rs.1613 crores.

Details of works

Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
Four lane			
1	NH-5 Chennai to Tada	42.00	185.00
2	NH-4 Walajapet to Kancheepuram	36.00	122.00
3	NH-7 Athipalli to Krishnagiri	61.00	205.00
4	NH-7 Thoppur Ghat section	7.40	20.00
5	NH-7 Salem bypass	8.40	27.00
6	NH-7 Karur bypass	9.36	46.00
7	NH-7 Karur ROB	0.84	12.00
8	NH-7 Namkkal bypass	8.40	21.00
9	NH-45 Pedestrian subway at Tambaram		3.00
10	NH-45 Pedestrian subway at Alandur		4.00

Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
11	NH-45 Tambaram to Tindivanam	93.00	375.00
12	NH-46 Krishnagiri to Walajapet	147.00	518.00
	Total	414.00	1538.00
Two lane			
13	Construction of Chennai bypass (Phase -I)	19.20	75.00
	Total	19.20	75.00
	Grand Total	433.00	1613.00

Works completed from April 2006 upto March 2010

During the period from April 2006 to March 2010, 1,044 Km length of roads including flyovers and subways have been improved to fourlane / two lane with paved shoulders (10.0m width) at the cost Rs.5579 crores.

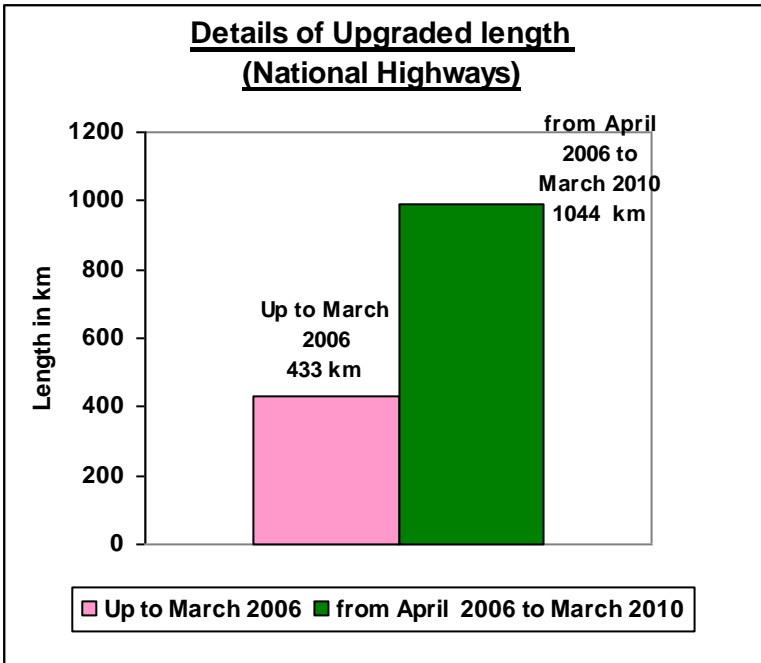
Details of works

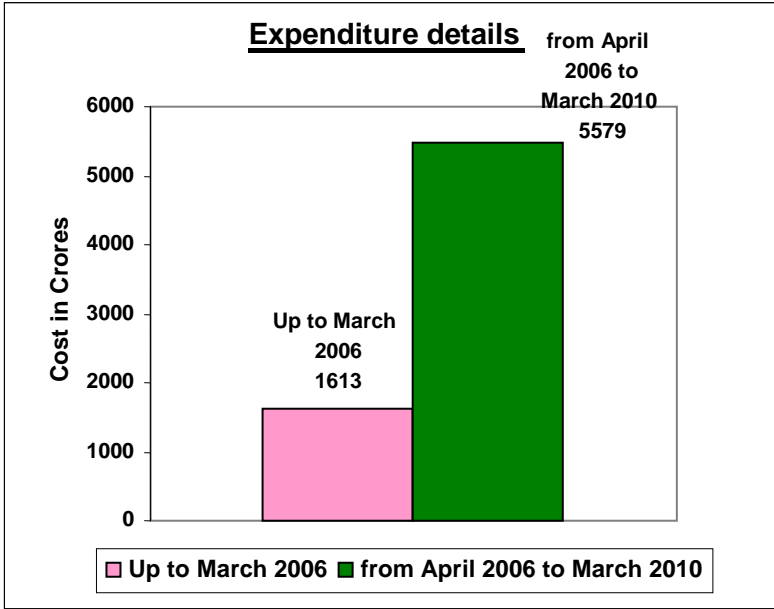
Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
Four lane			
1	NH - 4 Kancheepuram to Poonamallee	56.00	164.00
2	NH-7 Krishnagiri to Samayanallur	321.00	1626.00
3	NH7 Madurai to Kovilpatti	82.00	502.00
4	NH-7 Kayatharu to Panagudi	84.00	456.00
5	NH-45 Tindivanam to Trichy	205.00	1260.00
6	NH-45B Trichy to Madurai	125.00	476.00

Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
7	NH-47 Kumarapalayam to Sengapalli	49.00	380.00
	Total	922.00	4864.00
Two lane with paved shoulders (10.00 m width)			
8	NH-67 Karur to Coimbatore	114.40	175.79
	Total	114.40	175.79
Special Projects			
9	NH-45 Grade Separator at Kathipara junction	3.00	260.00
10	NH-45 Fly over in front of Chennai Airport	1.60	98.00
11	NH-205 Grade Separator at Padi junction	2.00	125.00
12	NH-67 Construction of ROB near Lalapet (Karur)	2.00	24.00
	Total	8.60	507.00
Port Connectivity			
13	Sea protection works along Chennai Ennore expressway		25.00
	Total		25.00
Others			
14	NH-45 Pedestrian subway connecting Chennai Airport and Trisulam Railway station		5.00
15	NH-45 Pedestrian subway at Pallavaram		2.48
	Total		7.48
	Grand Total	1044.00	5579.27

On going works under NHAI

Under the execution of NHAI, 802 Km length of 15 road works costing Rs.7,837 crores are under progress. Out of this, 480 Km length of road works have been completed. Balance 322 Km length of road works, flyover and elevated road works are under progress.





Details of Works under progress

Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
Six lane			
1	NH-5 Chennai to Tada section	43.00	419.00
Four lane			
2	Construction of Chennai bypass (Tambaram to Puzhal including Maduravayal fly over) (Work completed length -31 Km)	32.00	500.00
3	NH-7 Kovilpatti to Kayathar (Work completed length -28 Km)	39.00	173.50
4	NH-7 Panagudi to Kanyakumari (Work completed length -26 Km)	32.00	206.00
5	NH-45 Trichy to Dindugul (Work completed length -51 Km)	88.27	576.00
6	NH-45B Madurai to Thoothukudi (Work completed length -52 Km)	128.50	629.00
7	NH-47 Salem to Kumarapalayam (Work completed length -48 Km)	53.53	469.80
8	NH-66 Pondicherry to Tindivanam (Work completed length -16 Km)	38.62	285.00
9	NH-67 Thanjavur to Karur (Work completed length - 71 Km)	136.00	796.00
10	NH-68 Salem to Ulundurpet (Work completed length -44 Km)	136.36	941.00

Sl. No	Name of work	Length in Km	Cost (Rs. in crore)
11	NH-47 Coimbatore to Walayar	54.83	1095.00
	Total	739.00	5671.00
Others			
12	Elevated road connecting Chennai port to Maduravoyal junction	19.00	1655.00
13	NH-4 Grade Seperator at Koyambedu Junction	-	93.00
	Total	19.00	1748.00
	Grand Total	802.00	7837.00

Elevated Road Connecting Chennai Port to Maduravoyal Junction

The project cost of this 19 Km length road work is Rs.1,655 crores. 17.5 Km length runs at elevated level and the balance 1.50 Km runs at the ground level. This project is the longest elevated corridor project in the country.

The State Government and Chennai Port Trust have agreed to share equally the estimated cost of Rs.258 crores for land acquisition and rehabilitation of affected families. The agreement has been finalized and the works for rehabilitation have been commenced.

Port connectivity scheme

Cabinet Committee on Economic Affairs (CCEA) has approved the port connectivity scheme in the year 2000 with the object of connecting the 12 important ports in India. To implement the scheme, the Central Government

has established Special Purpose Vehicle (SPV) in many states. In Tamil Nadu two Special Purpose Vehicles (SPV) have been established and are functioning to improve the roads connecting 3 major ports such as Chennai, Ennore and Tuticorin.

Chennai - Ennore - Manali road improvement project (EMRIP)

Under the Port Connectivity Scheme, Government of Tamil Nadu, Chennai Port Trust, Ennore Port and National Highways Authority of India have jointly established Chennai Ennore Port Road Company.

The following State Highways stretches have been taken up for improvements under this Port Connectivity Scheme.

Sl. No	Name of work	Length in Km
1	SH 56, Widening to four lane and Improvements to Tiruvotriyur – Ponneri - Pancheti Road	9.00
2	Strengthening and improvements to four lane with paved shoulders of Manali oil refinery. (MDR)	5.40
3	SH 1, Widening to four lane with service road and improvements to Chennai – Ennore expressway	7.50
4	SH 2, Strengthening and improvements to Northern portion of inner ring road (Four lane)	8.10
	Total	30.00

This scheme was estimated to cost Rs.165 crores in the year 2003. Due to change of scope such as from two lanes into four lanes with service road, drainage, subway and rehabilitation and resettlement of project affected people etc., the estimated cost of the project increased to Rs.600 crores. Tenders called for to a value of Rs.267.47 crores through Tamil Nadu Road Development Company. The cost of the scheme is shared by the share holders of the company as follows:-

Sl. No	Contri buted by	Contri bution (per centage)	Contri bution Amount	Loan	Total
			Rupees in crore		
1	National Highways Authority of India	23.30%	139.80	117.50	257.30
2	Chennai port Trust	23.30%	139.80	110.68	250.48
3	Government of Tamil Nadu	9.70%	58.20	--	58.20
4	Ennore port	5.67%	34.02	--	34.02
	Total		371.82	228.18	600.00

As advised by the Hon'ble Chief Minister, Tamil Nadu we participated in the Coordination meeting held by Hon'ble Union Minister for Shipping, Government of India on 08.02.2010 at Chennai officials of connected departments were advised to expedite this project.

As 1,824 number of people living in huts along Chennai Ennore Expressway are affected by this project, they are rehabilitated in the dwellings constructed by Slum Clearance Board in Tiruvotriyur under the rehabilitated and resettlement scheme.

Thoothukudi Port Connectivity Scheme

Under this scheme, Thoothukudi Port Trust and National Highways Authority of India have jointly formed Thoothukudi Port Road Company to improve the 51.20 Km length of road in NH-7A from Tirunelveli to Thoothukudi at a cost of Rs.290 crores. Since the work was not completed by the contractor even after the agreement period, the contract was terminated. To complete the balance works re-tender called for and the agreement executed on 05.04.2010. The works are to be commenced shortly.

Work Plan-I

In Tamil Nadu, at a cost of Rs.9,029 crores for a length of 1296 Km. of 13 road works have been approved under work plan-I and works will be taken up after completion of land acquisition. The details of works are as given below.

Sl. No	Name of work	Length in Km	Cost (Rs.in crores)
Six Lane			
1	NH-4 Poonamallee to Walajapet	92.91	1045.00
2	NH-46 Walajapet to Krishnagiri	148.20	1066.00
3	NH-7 Karnataka State Border (Athipalli to Krishnagiri)	59.99	535.00
	Total	301.00	2646.00

Sl. No	Name of work	Length in Km	Cost (Rs.in crores)
Four lane			
4	NH-47 Kerala State Border to Kanyakumari	69.92	1100.00
5	NH-67 Kangeyam to Mettupalayam	59.35	601.00
6	NH-205 Andhra State Border to Chennai	59.60	571.00
7	NH-47 Sengapalli to Walayar (Six lane - Avinashi to Nilambur)	54.83	1095.00
	Total	244.00	3367.00
Two lane with paved shoulder (10 m. width)			
8	NH-45 & 220 Dindigul to Dhanushkodi	124.36	475.00
9	NH-49 Madurai to Dhanushkodi	185.55	625.00
10	NH-66 Tindivanam to Krishnagiri	173.46	753.38
11	NH-67 Nagapattinam to Thanjavur	80.00	304.92
12	NH-210 Trichy to Karaikudi	108.35	386.26
13	NH-210 Karaikudi to Ramnadhapuram	79.50	471.14
	Total	751.00	3016.00
	Grand Total	1296.00	9029.00

Among the above mentioned 13 works, work order has been issued for 1 work (Sengapalli –Walayar NH47). Tenders for the balance 12 works have been called for by the National Highways Authority of India and they

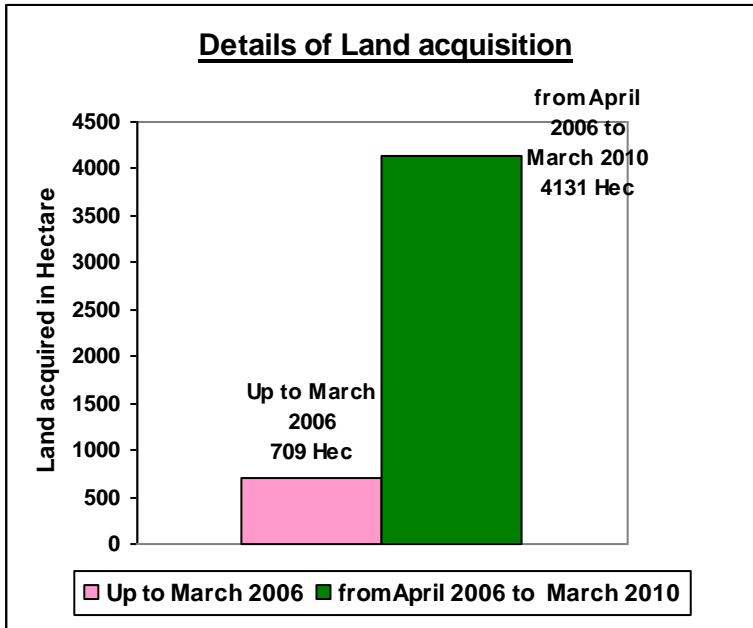
are under scrutiny. Work order for the above works will be issued and the works commenced in this year.

Land Acquisition

Tamil Nadu Government plays a vital role in acquiring land for the completion of Projects by National Highways Authority of India. Since formation of NHAI and upto March 2006, 709 hectares of land has been acquired and handed over to NHAI for projects.

Tamil Nadu Government has paid special attention to land acquisition and during the period from April 2006 to March 2010, 4131 hectares of land has been acquired and handed over to NHAI for projects.

Further, for the execution of works under work plan-I 5,346 hectare land is to be acquired and handed over to NHAI.



Since land required for these projects are to be acquired within short period of time, the State Government has paid special attention and orders have been issued to appoint Revenue and Survey Staff including Special District Revenue Officer, Special Taluk Officer from Revenue Department. Assistant Survey Inspector and Sub Survey Inspector from Survey Department to 65 Special Land Acquisition Units.

To expedite process of land aquisition, a meeting has been convened under the chairmanship of Hon'ble Deputy Chief Minister at Chennai in which the officials of this Department and myself participated. At the end of the meeting, the Hon'ble Deputy Chief Minister advised the officials of the National Highways Authority of India to expedite execution of the above projects. This work is being carried out swiftly at present.

5.19 Tamil Nadu Road Sector Project (TNRSP)

The following works were taken up under the Tamil Nadu Road Sector Project implemented with the financial assistance of World Bank and the Government of Tamil Nadu.

1. Construction of roads conforming to international standards.
2. Enhanced Periodical Maintenance of roads.
3. Institutional Strengthening and policy development.

This project was launched at an estimated cost of Rs.2160 crores with the assistance of World Bank. The current revised estimate of the project is Rs.2,442 crores. In which, the World Bank loan component is Rs.1,903 crores and the share of Government of Tamil Nadu is Rs.539 crores.

In the initial phase of the project, progress of the project was slow due to delay in land acquisition, natural calamities and other reasons. After making a thorough study of the progress, during its visit in March, 2009, the World Bank extended the project completion period up to March, 2010. Due to variations in the site condition and additional works & additional quantities for the item of works admitted in the DPR, the project completion period has been extended up to 31.03.2012.

5.19.1 Upgradation Component

Under this component, some of the stretches in National Highways and selected stretches of State Highways and Major District Roads were taken up for upgradation in 6 packages with World Bank assistance.

- **Package 1** – The Road stretch from Arcot in Vellore District to Thiruvarur, through Arni, Thiruvannamalai, Virudhachalam, Jayamkonadam and Kumbakonam for a length of 378 Km has been taken up for upgradation at a cost of Rs. 768.50 crores. In this, about 370 Km has been completed. This package includes 6 ROBs and provision of bypasses at Arani, Polur, Thiruvannamalai, Thirukovilur, Virudhachalam, Ariyalur, Chidambaram and Sirkazhi. All these works will be completed in the current year.
- **Package 2** - The road stretch, from Nagapattinam to Kattumavadi (119.00 km) via Thiruthuraiipoondi and Muthupettai, has been taken up for upgradation at an estimated cost of Rs. 237 Crores. In this stretch 115km has been completed. This package includes 3 ROBs and provision of bypasses at Nagapattinam, Thiruthuraiipoondi and Muthupettai. These works will be completed in the current year.
- **Package 3** - The road stretch from Kattumavadi to Ramanathapuram (100.00 km) via Mimisal had been completed at an estimated cost of Rs. 143 Crores and dedicated to the nation by the Hon'ble Union Minister Thiru. P. Chidambaram on 28.02.2009.
- **Package 4** - Another road stretch from Ramanathapuram to Tuticorin (115.00 km) via Keezhakarai and Sayalkudi has also been completed at an estimated cost of Rs. 133 Crores and dedicated to the nation in two phases by Hon'ble Deputy Chief Minister of Tamil Nadu on 19.11.2009 and 27.02.2010.
- **Package 5** - Providing bypass to Ramnathapuram town is taken up and the work is nearing completion.

- **Package 5A** - Land acquisition for forming the Kumbakonam bypass is nearing completion. Tender for the civil works is under scrutiny.
- **Package 6** - The construction of high level bridge connecting the Manakudi Villages in Kanyakumari District has been commenced on 16.03.2010 and the work is in progress.

The details of the Bypasses taken up under this project, their length and estimated cost are tabulated below:-

Sl. No	District	Town	Length (Km)	Estimate (Rs. In crores)
1.	Thiruvanna malai	Arani	5.30	11.61
2.		Polur	4.90	10.72
3.		Thiruvannmalai	10.90	23.86
4	Villupuram	Thirukovilur	4.40	9.63
5.	Cuddalore	Vridhachalam	9.20	19.92
6.		Chidambaram	16.90	37.00
7.	Ariyalur	Ariyalur	7.60	16.63
8.	Nagapattinam	Sirkazhi	8.80	19.18
9.		Nagapattinam	9.00	19.49
10.	Thiurvarur	Muthupettai	4.90	10.51
11.		Thiruthurai poondi	3.70	6.80
12.	Ramanatha puram	Ramanatha puram	10.40	35.29
13	Thanjavur	Kumbamkonam	4.10	24.56
		Total	100.10	245.20

5.19.2 Enhanced Road Maintenance Works

Enhanced road maintenance works to the length of 1,033 Km in State Highways and Major District Roads (MDR) were taken up for execution in four phases at a cost of Rs.430 crores. Of these, 953 Km length of road works have been completed at the cost of Rs.374 crores. The remaining works will be completed in the current year.

5.19.3 Institutional Development Strategy (IDS)

Government will be issuing orders for appointment of Director General for Highways Department and for re-organization of the administrative set-up of the Highways Department with a view to increase the efficiency of the department.

5.19.4 Public Private Partnership (PPP) scheme.

To carryout the Techno Economic Feasibility Study under PPP scheme, Consultants were engaged and reports on Coimbatore western bypass and Outer Ring Road, Chennai were prepared. Based on this, the Government of Tamil Nadu is implementing the project of Coimbatore western bypass through Chief Engineer (General) and the Chennai Outer Ring Road with Tamil Nadu Road Development Company (TNRDC) as Managing Associate.

Consultants are to be engaged for preparation of technical feasibility reports to undertake four laning as well as improvement works in the following roads under the Public Private Partnership Scheme.

1.	Mettur – Pazhanganathu – Oddanchatriram – Dharapuram – Kangeyam - Tirupur Road –(SH 37).	126 Km
2.	Erode – Dharapuram Road –(SH 83A)	78 Km
3.	Arcot bypass road.	3.6 Km
4.	Erode Outer Ring Road Phase II.	9.6 Km
5.	Chennai Outer Ring Road Phase II.	32.3 Km

5.19.5 Strategic Option Study (SOS) II

On the basis of Strategic Option Study carried out by the Highways Department, the World Bank has offered loan assistance for the road development works taken up at present. Strategic Option Study is essential for getting financial assistance from International funding agencies like World Bank.

Necessary action is being taken to carry out the Strategic Option Study to prioritize the roads on the Techno & Economic Feasibility basis from the core network of roads in Tamilnadu. Approval of World Bank has been sought for engaging consultants. On obtaining approval from World Bank, consultants will be engaged and studies undertaken. On the basis of results of Strategic Option Study, action will be initiated for getting financial assistance from World Bank and other International funding agencies.

5.19.6 Performance Based Maintenance

Contract(PBMC)

It has been proposed to substitute the existing procedure of maintaining the roads and to implement a new concept of long term maintenance contract for

execution of works with quality and for maintenance of the particular road for a term of 5 years continuously under a single contract with World Bank assistance. The World Bank has approved, the following roads under PBMC on a pilot basis. Tenders have been floated. Engaging consultants for supervising the works is also in progress.

Sl. No.	District	Name of road	Total length in Km
1.	Salem	Mecheri – Omalur Road (MDR)	14.60
2.	Salem & Namakkal	Omalur – Sankagiri – Tiruchengode - Paramathy Road (SH No.86)	81.00
3.	Salem & Erode	Thoppur – Mettur – Bhavani – Erode Road (up to Bhavani) – (SH No.20)	94.00
4.	Salem, Dharmapuri, Krishnagiri & Vellore	Salem – Harur-Tirupathur – Vaniyambadi Road – (SH No.18)	106.40
		Total	296.00

5.19.7 Computerisation

To strengthen the present administrative set-up and to increase efficiency action has been taken for computerization of all the Wings / Offices of the department. 1,779 computers at a cost of Rs.14.77 crores have been provided to 751 offices right from Chief Engineer's office to Section office of all wings of the department. Further, under this scheme, computer training has been given to 2,700 staff members and software training to 330 Engineers.

5.19.8 Geographic Information System (GIS)

To enhance decision making in prioritizing road works and executing them, the Road Information System (RIS) and Bridge Information System (BIS) is being created in the software in GIS platform and customized for the use of Highways Department.

1. GIS Software was procured and No Objection for the Consultancy services for Customization of software has been received from World Bank.
2. NOC from World Bank for procurement of Data collection equipment is awaited.

5.19.9 Project and Finance Management System (P&FMS)

The main object of this is to create Project Management, Financial Management and Employee Service Record in such a way to automate the existing manual procedures through computerisation throughout the State and thereby improve the quality of service to the public. For this, draft plan to engage consultants has been finalised and sent to World Bank for approval. On obtaining approval consultants will be engaged and system will be implemented.

5.19.10 Road Safety Audit

An agreement was made with the Indian Institute of Technology (IIT), Chennai on 22.01.2010 in regard to the road safety audit. This includes reviewing the safety status in the upgraded roads under contract TNRSP 02, 03 & 04 for about 335 Km, to identify safety related problems, deficiencies and shortcomings and suggesting remedial measures. The Road Safety Audit works are in

progress in the 119 Km length of road from Nagapattinam to Kattumavadi upgraded under package to of Tamil Nadu Road Sector Project. All these works will be completed in the current year.

5.19.11 Road Safety Awareness

Consultancy services for road safety awareness programme have been supervised by the Director, Institute of Road Transport, Chennai and the works completed.

This includes five items of works viz., formulation of detailed action plan, creating awareness among the drivers of 3/4 wheeler, school students and general public about the road safety measures, find ways and means to avert dashing against stranded vehicles in the roads from the rear. All the works have been completed.

5.20. Periodical Renewal of Roads

5.20.1. Allocation of additional funds for renewal of roads

Proper maintenance of road infrastructure developed at huge cost under various schemes of the Government is essential. In cognisance of this fact this Government is giving top priority to the works of renewal and maintenance of Government roads. Accordingly, this Government has taken steps to renew and maintain the roads keeping five years cycle of renewal as per IRC norms.

This Government has allotted and spent adequate funds for road maintenance as detailed below :-

(Rs.in crores)

Year	Total Expenditure	Expenditure by Rural Development Wing	Highways Department	
			Expenditure	Completed Length (in km)
2006-07	801.37	103.60	697.77	7889
2007-08	826.26	103.60	722.66	7115
2008-09	874.04	103.60	770.44	6632
2009-10	876.83	103.60	781.06	6392
Total	3378.50	414.40	2971.93	28028

Thus, during the last 4 years, 28,028 Km length of roads have been renewed at a cost of Rs.2,971.93 crores.

During the years 2001 – 06, 18,361 Km length of roads were renewed at the cost of Rs.1,522.12 crores.

The 4,225 Km length of Panchayat and Panchayat Union Roads, Agricultural Development Projects Roads and Sugarcane Roads which were improved from earthen to BT roads during 1996 – 2002 and left without maintenance had been renewed at an at the cost of Rs.288.46 crores.

Moreover, a provision of Rs.653.18 crores has been made in the current year for the maintenance of Government roads.

5.20.2. Bridge Maintenance

Proper maintenance of bridges constructed at huge cost will enhance the life span. In addition, maintenance of the bridges and cross drainage works will facilitate easy draining of flood water during monsoon period and reduces the damages to the riding surface. Hence, the month of August 2009 was observed as bridge maintenance month and special methods were adopted for proper bridge maintenance as announced in the Budget speech 2009-10.

Out of the 1,12,963 bridges maintained by the Highways Department as on 2009-10, maintenance works have been carried out in 50,645 bridges at a cost of Rs. 26.79 crores. Special attention will be given for bridge maintenance in the current year also.

VI. Projects implemented by Tamil Nadu Road Development Company

6.1 Rajiv Gandhi Salai (IT Corridor) – Phase II

Under Phase-I the Rajiv Gandhi Salai (IT Corridor) was developed to six lane road at international standards from Madhya Kailash, Chennai to Siruseri for a total distance of 20 Km and the Link Road connecting Sholinganallur and East Coast Road at Kudimiyam Thoppu to four lane road at a cost of Rs.300 crores. This road is being maintained through Tamil Nadu Road Development Company (TNRDC).

In the second phase, the Government has proposed to construct six lane road for a distance of 25 Kms from Siruseri to Mamallapuram connecting East Coast Road, under Public Private Partnership on Design, Build, Finance, Operate and Transfer (DBFOT) basis. The rough cost estimate for the project is Rs.550 crores. In this, a grant of Rs.150 crores is to be given as Government share. The Government has sanctioned Rs.70 crores for land acquisition and the land acquisition works are in progress. On completion of land acquisition, steps will be taken to implement the project.

6.2. Chennai Outer Ring Road

In order to reduce the vehicular congestion in Chennai city, the Government decided to construct an Outer Ring Road with six lane for a length of 62 Km from Vandalur to Minjur via Nemelichery. Under first phase, the work for a length of 30 Km from Vandalur in NH-45 to Nemelichery in NH-205 via Nazrathpet in NH4 at a cost of

Rs.1,081.40 crores has been taken up under Public Private Partnership on Design, Build, Finance, Operate and Transfer (DBFOT) basis. The Government of Tamil Nadu has proposed to disburse a sum of Rs.300 crores as project support fund, during the construction period of 30 months, depending on the progress of the project. Further during the operation period of 17 ½ years, the concessionaire will be paid Semi Annual Annuity for every 6 months.

Under the Phase II, works are in progress for acquisition of lands required for construction of six lane road from Nemellichery to Minjur situated in Thiruvotriyur – Ponneri – Panchetty road for a total distance of 32 Km.

Project report for implementing the Phase II of the project at an estimated cost of Rs.1,076 crores is under the consideration of the Government.

Once this new road is formed, the heavy vehicles and the containers, entering into Tamil Nadu from different directions can reach Ennore and Chennai Ports and also other places, without any loss of time.

Tamil Nadu Road Development Company is acting as the Managing Associate for the Project.

A sum of Rs.2.75 crores was spent for this project in 2009-10.

A provision of Rs.100 crores has been made for this project in 2010-11.

6.3. Development of East Coast Road

The East Cost Road is running from Chennai to Kanyakumari to a length of 765 Km. The 166 Km length of road from Chennai to Cuddalore was widened to two lane at the cost of Rs.102 crores with the financial assistance of Asian Development Bank and put in to use. In this, the road from Chennai to Akkarai in Kanchipuram District is being maintained through Highways Department. The road to the length of 113 Km starting from Akkarai and upto Pondicherry State border is being maintained as a toll road by the Tamil Nadu Road Development Company.

Taking into account the heavy traffic from Chennai to Pondicherry State border in the East Coast Road and also the Environmental and Social Impacts and to avoid accidents, the Tamil Nadu Road Development Company has prepared and handedover of the 'Feasibility report to the Government based on the orders of Government to undertake investigation on the feasibility of four laning the road.

The road from Villupuram to Nagapattinam via Puducherry, Cuddalore has been upgraded as National Highways (No.45 A). In this road, the road from Puducherry to Nagapattinam is running along the East Coast. The State Government has insisted the Central Government to widen the 14 Km length of single lane road in Nagapattinam District, to two lane.

The works of construction of bypasses to Chidambaram and Sirkazhi towns under the Tamil Nadu Road Sector Project are in progress.

Moreover, in this road from Nagapattinam to Thoothukudi via., Muthupettai, Tiruthuraipoondi, Velankanni, Kattumavadi, Mimisal and Ramnad, most of the works except a couple of bridge works and Ramnad bypass, have been completed

As announced in the budget speech, to widen to two lane and improve the remaining portion of 120 Km length of road from Thoothukudi to Anju Village in Kanyakumari District (in NH-7) via., Tiruchendur, Koodankulam at a cost of Rs.190 crores with State Government funds, preparation of Detailed Project Report has been undertaken through consultants. These works will be taken up for execution through General wing in the current year.

Once the upgradation of the road is completed, it will be a travellers' delight, to visit temples and tourist spots in the East Coast Road, starting from Chennai and ending at Kanyakumari.

VII. SPECIAL PROJECTS

7.1 Coimbatore Western bypass

The Government has announced in the budget speech of the current year, formation of ring road for a length of 26 Km. with four lane and paved shoulders connecting NH 47 & 67 in the western side of Coimbatore city at an estimated cost of Rs.284 crores. The land acquisition works will be taken up in the current year in the 1st phase.

7.2 World classical Tamil conference – Road infrastructure facilities

In order to ease the traffic congestion and to regulate the traffic likely to occur during the proposed World Classical Tamil Conference in June 23-27, 2010, the Government has accorded administrative sanction for Rs. 59.85 crores for widening and improving the 96 Km length of roads connecting the conference campus with Railway station, Bus stops and Airport and road works are under progress. These works will be completed soon.

Moreover, the work of construction of railway road over bridge with three lane near the three lane bridge recently constructed by the Railways near the Medical College in Salem – Cochin road has been taken up at a cost of Rs.4.88 crores through Railways Department as a deposit work. The works of formation of approach roads are under execution by the Highways Department.

On the advise of the Hon'ble Chief Minister and by the earnest efforts taken by the Hon'ble Deputy Chief Minister the work of strengthening the 10 Km length of four lane road in the 20 Km stretch of NH 67 from Share market to Narasimmanaikanpalayam via Shobha corner, Goundampalayam and Thudiyalur (Km 340/0 – 360/0) and the work of four laning the remaining 10 Km length of two lane road at a total cost Rs.49.70 crores are under execution and these works will be completed soon.

7.3 Peraringar Anna centenary celebration – road infrastructure facilities

As per the announcement made by the Hon'ble Chief Minister in connection with the Peraringar Anna centenary celebration 3.50 Km. length of road works at a cost of Rs.7.90 crores and as announced by the Hon'ble Deputy Chief Minister 2 Km length of road works and drainage works at a cost of Rs.2.75 crores have been sanctioned by the Government. These works have been taken up for execution. These works will be completed during this year.

7.4 Forming approach road to National Security Guard

The Chennai hub of the National Security guard is located in Kelampakkam in Kanchepuram district. The work of four laning the approach road connecting this office with the Vandalur Kelambakkam State Highways has been completed at a cost of Rs. 2.36 crores.

7.5 Provision of access roads to newly Developing Industrial zones

Taking into account the importance of industrial development, this Government provides all facilities to the new industrial zones. Accordingly, Government is giving more attention to form roads connecting industrial units with importance roads. At present, the Government has taken steps to form link roads to the special economic zones in Soorapoondi in Thiruvallur district and Pochampalli in Krishnagiri District, through Highways Department.

VIII. ROAD SAFETY ACTION PLAN

To reduce considerably the road accidents involving pedestrians, cyclists and buses and to create an awareness among the road users, Road Safety Action Plan is being implemented. Loss of lives can be averted by reducing the accident rate. The accidents reduced due to the steps taken by the Highways Department. To collect the data on accidents, share them between departments concerned and to analyse the same, steps have been taken as follows:-

- To investigate road accidents properly, share the data on accidents with Transport and Police department and to analyse the same
- To introduce a system of road safety measures: identify accident prone areas and take remedial action, implement design and structural improvements
- To avert accidents due to speed breakers in the roads, providing new and uniform speed breakers at road junctions and curves wherever required.

8.1 Improvement of black spots

Out of the 307 accident prone spots identified in the National Highways and Highways Department roads, 254 accident prone spots are in the roads under the control State Government. In this, improvement works completed in 200 spots. In the remaining 54 spots improvement works will be taken up in a phased manner since land is required for certain works.

Out of the 53 black spots identified in the National Highways improvement works completed in 36 places and improvement works in the remaining 17 places would be completed in the current year.

8.2 Junction improvement

To avert accidents in the road junctions where the State Highways and Major District Roads join a National Highways, the works of provision speed breakers, erection of caution boards and other improvement works were taken up at a cost of Rs.4.69 crores in 2008 – 2009. In a similar manner, improvement works to the value of Rs.32 crores in 800 places where the State Highways join have been taken up on priority basis under non-plan in 2009 – 10.

8.3 Erection of boundary stones and eviction of encroachments

To avert traffic congestion and accidents in the Highways due to encroachment, boundary stones have been erected in the entire length of 9,384 Km of State Highways. Out of 11,288 Km length of Major District Roads, boundary stones have been erected and Highway boundaries established in 8,400 Km length of roads. By this, encroachments have been averted on roads. This work has received appreciation of the public. Boundary stones would be erected in the remaining stretches of Major District Roads in the current year. Similarly, the work of erection of boundary stones also in the 36,096 Km length of Other District Roads will be commenced in the current year.

8.4 Avenue plantation

On the occasion the 84th birthday of the Hon'ble Chief Minister of Tamil Nadu, in 2007, a programme of planting 3 lakhs saplings on the Highway Road Margins was launched.

Accordingly, 3.93 lakhs saplings were planted in 2007 – 08 and 2.80 lakhs saplings were planted in 2008 – 09 and maintained.

In 2009 – 10, 2.53 lakhs saplings have been planted. This scheme will continue to be implemented in the current year also.

IX. HIGHWAYS RESEARCH STATION

9.1 Research and Research Activities:

The Highways Research Station at Chennai was established in 1957. This Station is undertaking research, and testing for providing technical advice for works under taken by Highways department.

Its main functions are as below:

- Field Oriented Research.
- Imparting Technical Training.
- Conducting Quality Control Inspection.

To achieve the above, four laboratories at Chennai and four laboratories at regional level are functioning. They are located in Thanjavur, Coimbatore, Madurai and Tirunelveli.

9.2 Quality Control in road works

For improvement and maintenance of roads and bridges huge funds are spent through Highways Department. To ensure quality of these works and for proper maintenance, Highways Research Station undertakes the required tests.

Quality control tests were being conducted in the roads and bridges throughout Tamilnadu by 13 sub divisions (including regional laboratories in Thanjavur, Madurai, Coimbatore Tirunelveli.) up to 2006 – 07.

To improve the quality of all road and bridge works executed by the Highways Department, the quality control set-up has been extended to each regular division, from 2007-08. In this, 38 Assistant Divisional Engineers and 114 Assistant Engineers have been engaged. With this, it has become possible to ensure quality of works properly.

Further, under reorganization, it is proposed to form a full-fledged quality control set-up by appointing 8 Divisional Engineers. Further, action is being taken to form separate laboratories for each circle.

The Quality control works conducted during the past four years are as follows:-

Details of tests	2006-2007	2007-2008	2008-2009	2009-2010	Total
Number of works for which test have been conducted	820	1753	5506	4944	13023
Sample collected	4041	12426	38145	38716	93328
Number of Tests conducted	6128	16774	44360	44188	111450

9.3 Laboratories at Chennai

a) Soil and Foundation Engineering laboratory.

- To suggest Design of Flexible and rigid pavements.
- Conduct all types of soil tests and recommending technical advice for designing suitable sub – base and base course.
- Undertake Pile load tests to find the capacity of pile.
- To give technical advice on use of new materials in road formation and bridge constructions.

b) Concrete and Structures laboratory.

- Suggest Concrete mix design for use in various bridge construction.
- Carryout tests on cement and coarse aggregate to asses their suitability.
- Take up non –destructive test on concrete members of the bridges.

c) Bitumen laboratory

- Suggest Mix design for all types of bituminous mixes like SDBC , DBM , BC and Mastic asphalt.
- Undertake various tests on bitumen and aggregate.

d)1. Functions of Traffic and Transportation Laboratory.

- To assess surface roughness using Bump Integrator Equipment.
- To conduct traffic volume survey and axle load survey for the design of pavement thickness.

2. Traffic Engineering Division

Road junction design and improvements and suggesting technical advice for traffic improvements are being done by this division.

Further Field data for all roads are being collected by RAMDAS equipments through computers fitted with this equipment exclusively.

Accident prevention studies are being conducted to avoid accidents in the road.

9.3.1 Functions of Zonal laboratories.

- To conduct deflection test on riding surface of bad stretches by equipment and recommending suitable design of the pavements.
- To conduct CBR tests on soils on roads formed/to be formed and render technical advice for proper design of pavement.
- Conducting Quality control tests on materials used in road works during progress.
- Render assistance to the tests and research activities carried out at Highways research Station, Chennai.

9.3.2 Performance and Achievement:

a) Research and Research Activities:

Highways Research station undertakes studies to offer suggestions to rectify surface deterioration, even in properly maintained roads. As it is, to achieve full utilization of bridges, suggestions are being given for the rectification of the bridge after obtaining the various particulars of the bridge.

b) Field oriented Research:

During 2009-10, the following research studies were conducted at a cost of Rs 3.17 lakhs under Part –II scheme.

1. Study on the speed evaluation of damages caused on roads.
2. Study on effect on curing in concrete.
3. Study on copper slag as fine aggregate in concrete mix.

The lab testing equipments were purchased for Rs.4.86 lakhs during the year 2009-10.

The Highways research Station is collecting samples and conducting tests for various works. During 2009 – 10 the detail of tests performed and mix designs suggested for road and bridge works resulting in a revenue of Rs.2.97 crores, are given below:-

Sl. No	Details	Number	Revenue (Rupees)
1	a) Tests conducted related to the design of pavements for roads, pile load tests and other tests conducted	149	38,59,233
2	Bituminous mix design proposed for roads	540	44,82,656
3	Concrete mix design proposed for bridges	623	79,98,153
4	Tests conducted relating to design of pavements using Bump Integrator tests and other tests conducted	19	3,63,731
5	Tests conducted by Four regional labs	2037	1,30,02,287
	Total	3368	2,97,06,060

This includes Rs.6.15 lakhs earned from other departments, other states and private organizations for 39 laboratory tests in soil and pavement design.

9.4 Road Stretches prone to Damages:

The Government has decided to identify and improve the roads prone to frequent failures due to poor sub soil, water logging, and large scale movement of heavy vehicles and action is being taken to improve these road stretches. Such bad stretches have been identified in

State Highways and Major District roads through field officers by inspection. Field inspections, collection of soil samples and soil testing are being undertaken by Highways Research Station. The Highways Research Station recommends remedial measures for complete re-building of these stretches to avoid further deterioration after considering the factors for the damages. During 2009-10, the 3,279 Nos of California Bearing Ratio (CBR) tests and Benklemen Beam Deflection tests in 113 roads of 906 Km length have been conducted and pavement design suggested for the same.

9.5 DATA BANK

A Data BANK has been created for retrieving technical information on roads and bridges. All information regarding execution of plan scheme are being stored in this databank. In State Highways, Major District roads and other District Roads, out of the total 1,326 Nos of major bridges, information collected for 614 major bridges. And out of 7,770 minor bridges, information has been collected for 3,408 minor bridges and stored. The Details of remaining bridges would be collected in the current year.

Further, separate action plan is being initiated by assigning unique number for bridges for proper maintenance.

The traffic data collected on 4,179 places in Government roads has been stored in computers. By this, it is possible to retrieve the information immediately on bridges and find out the damaged bridges and repair the same. Hence, traffic census data would be received once in three years from regular divisions and stored in the computer.

9.6 Training Programme for Engineers

Training is very much essential to improve the technical knowledge and clear the doubts and to obtain technical skill. To overcome technical problems faced during execution, necessary field oriented training are being imparted. Highways Research Station plays a vital role in acquiring and updating latest knowledge in roads and bridges in the field of investigation, design, construction and maintenance.

At present quality control training is being imparted at Highways Research Station to all Assistant Divisional Engineers, Assistant Engineers and Junior Engineers of the Department in the field of Soils, Bitumen, Concrete, Traffic and Computer. This is a continuous program.

Training is being conducted in Highways Research Station to the newly appointed 211 Assistant Engineers. So far 161 fresh Assistant Engineers have been trained.

Further, the Engineers of the Highways Research Station are also undergoing training from CRRI, (Central Road Research Institute), and NITHE, (National institute for Training Highway Engineers), New Delhi and other Institutions.

X.DESIGNS AND INVESTIGATION

10.1 Functions:

This wing undertakes the works of gathering field particulars, approval of design for bridge works, preparation of estimate for the road improvement projects implemented by various wings of the Highways Department. These works are being executed by 7 Investigation Divisions and 4 Designs Divisions.

10.2 Investigation Divisions and their activities:

The 7 Investigation Divisions are functioning with their Head Quarters at Chennai, Villupuram, Trichy, Madurai, Palayamkottai, Coimbatore and Salem.

The activities of these divisions are:

I. Field Investigation:

- Detailed investigation to collect field and catchment area particulars at the location of the bridge and the adjacent areas.
- Obtaining necessary particulars for the proposals regarding river crossings from Public Works Department and Railway Crossings from the Department of Railways.

II. Sub-soil investigation by exploratory bores to arrive at the bearing capacity to design the foundation of the bridges.

III. Preparation of Reports and Drawings:

- Formulation of suitable proposals based on field and sub-soil investigations.
- Fixing of bed levels and calculation of hydraulic particulars.
- Preparation of specification report and alignment drawings for the proposals and obtaining approval for the feasible proposals.
- Preparation of estimate for the works of formation of new bye-passes and link roads.

During the year 2009-10, Investigations Divisions have furnished necessary field particulars for preparation of designs for 5 bye-passes, 37 River Bridges, 6 Road Over Bridges and 4 Road Under Bridges, costing Rs.486.49 crores.

10.3 Designs Divisions and their activities:

4 Designs divisions are functioning at the Head Quarters of Designs and Investigation, Chennai.

The activities of these divisions are:

- Preparation of designs, drawings, estimates and technical guidelines for the works of River Bridges, ROBs, RUBs, Grade Separators at road junctions etc.,

- Scrutinizing and according approval for the alternative designs for bridge tenders furnished along with the tender bids as well as during execution of bridges
- Scrutiny of the Detailed Project Reports prepared by consultants.
- Re-designing the foundation, if the bearing capacity of the soil is found to be less during execution.
- Re-designing the other components of the bridges, if warranted as per the geo-technical report.
- Giving recommendations to facilitate the Home Department, Government of Tamil Nadu to issue permit for over-dimensional heavy motor vehicles to ply on Government roads after scrutinizing in accordance with the Rules of Central Government and State Government of Tamil Nadu.
- Scrutinizing and according approval for the structural designs of bridges constructed by other departments.
- Offering technical guidelines on the investigation and design of certain bridge projects received from the Government.

10.4 Works Completed by Designs Divisions:

During 2008-09, designs for 11 ROBs, 31 River Bridges totaling 42 bridge works costing Rs.687 crores have been prepared. Re-design of foundation for 5 river bridges were prepared.

During 2009-10, preparation of designs and drawings for 47 ROBs and 5 RUBs, 53 River Bridges, 3 Grade Separators totaling 108 bridge works costing Rs.1,564 crores were taken-up by Designs Wing. This includes 39 ROBs, 1 RUB, 6 River Bridges, 3 Grade Separators and 2 alternate designs prepared by consultants.

Scrutiny of field particulars and preparation of designs for 66 bridge works costing Rs.1,336 crores are to be undertaken in the current year. Moreover, project estimates are to be prepared for the works of formation of 13 new bye-passes.

XI. Tamil Nadu Maritime Board

There are three major ports viz., Ennore, Chennai and Thoothukudi and twenty minor ports within the 1076 KM long coastline of Tamil Nadu. In addition, proposals for notifying another 3 minor ports are under the consideration of the Government. The major ports, set up under the Major Port Trust Act 1963, come under the control of Government of India and the minor ports, declared under the Indian Ports Act 1908, come under the control of the State Government.

The major activities of Tamil Nadu Maritime Board is to encourage setting up of Private Captive Ports and their allied facilities such as breakwaters, jetties, moorings, etc. through private investment.

The Tamil Nadu Port Department, which was administering the minor ports in Tamil Nadu, was converted as Tamil Nadu Maritime Board under the Tamil Nadu Maritime Board Act, 1995 (Tamil Nadu Act 4/96) with effect from 18.03.1997.

Natural depth of the sea, supportive industrial environment, co-operative labour force, disciplined manpower, a well defined policy and unstinted support of the Government, has made the State of Tamil Nadu, an ideal destination for setting up port based industries and private ports.

11.1 Minor ports in Tamilnadu:

Government ports	Captive ports	Ports announced and under consideration
1) Cuddalore	1) Kattupalli	1) Cheyyur (Panaiyur)
2) Nagapattinam	2) Ennore (Minor)	2) Parangipettai
3) Pamban	3) Mugaiyur	3) Udangudi
4) Rameswaram	4) Thiruchopuram	
5) Valinokkam	5) Silambimangalam Shipyards port	
6) Kanyakumari	6) PY-03 Oil Field	
7) Colachel	7) Kaveri Port	
	8) Vanagiri Port	
	9) Thirukkadaiyur	
	10) Thirukkuvilai	
	11) Punnakkayal	
	12) Manappad	
	13) Koodankulam	

All the minor ports in Tamil Nadu are anchorage ports without berthing facilities and hence cargo are transhipped from the vessels at mid-stream to the shore and vice-versa through barges.

11.2 Activities of Minor Ports :

In the Government ports, ships call at Cuddalore and Nagapattinam ports for the export of Diesel and Naphtha and import of Fertiliser, Coal, Edible Oil, Crude Oil and General cargo. Small ships are piloted through Pamban channel. Kanniyakumari port is used for Passenger Ferry Service.

The captive Ports are operated by private companies for their own use. The development of entire infrastructure facilities in these captive ports is the responsibility of the companies concerned. At Ennore Minor Port and Thirukkadaiyur Minor Port liquid ammonia and naphtha are being transferred directly from the vessel at Buoy Mooring System to the storage tank on shore through sub-marine pipelines.

Of the thirteen captive ports, five ports, viz., Ennore Minor Port (Thiruvallur), Thiruchopuram (Cuddalore), PY-3 Oil Field (Cuddalore), Thirukkadaiyur (Nagapattinam) and Koodankulam (Thirunelveli) are presently operational. The remaining eight captive ports are under various stages of development.

11.3 Commodities handled in the Non Major Ports :

1. Government Ports

<i>Sl. No.</i>	<i>Port</i>	<i>Cargo Loaded</i>	<i>Cargo Unloaded</i>
1.	Cuddalore	--	Fertiliser, Coal and Vinyl Chloride Monomer
2.	Nagapattinam	Diesel and Naphtha	Edible Oil, Crude oil and General cargo

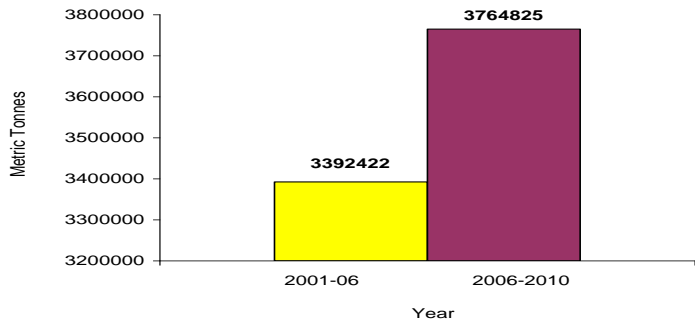
2. Captive Ports

<i>Sl. No.</i>	<i>Port</i>	<i>Cargo Loaded</i>	<i>Cargo Unloaded</i>
1.	Ennore Minor Port	-	Liquid Ammonia
2	PY 03 Oil field	Crude oil	-
3	Thirukkadaiyur	-	Naphtha

11.4 Activities of Tamil Nadu Maritime Board and the Increase in Revenue:

This Board handled 33,92,422 Metric tonnes during the five year period from 2001-02 to 2005-06, whereas it handled 37,64,825 Metric tonnes during the four year period from 2006-07 to 2009-10. On comparison, the cargo handled during the last four years is 3.72 Lakh Metric tonnes higher than the cargo handled during the previous five years.

Details of Cargo handled



Tamil Nadu Maritime Board, formed in 1997, handled 2.68 lakh Metric Tonnes through 19 ships in that financial year and was functioning with the Government grant. With the improved performance, Tamil Nadu Maritime Board handled 8.98 lakh Metric Tonnes through 92 ships during 2008-09 and earned total income of Rs. 15.10 crores and a Cheque for Rs. 2.75 crores, being the share of lease rent of Tamil Nadu Maritime Board, was handed over to the Hon'ble Chief Minister of Tamil Nadu on 09.10.2009.

During the year 2009-10, Tamil Nadu Maritime Board handled an all time high cargo of 11.74 Lakh Metric tonnes through 120 ships and earned a total income of Rs. 22.17 crores, and proposes to pay Rs. 4.75 crores to Government as share of lease rent for 2009-10.

11.5 Minor Port Development Policy:

Tamil Nadu Maritime Board is fully aware of the importance of the industrialization for the economic development of the State. It encourages setting up of Captive Ports, Jetties and Moorings for the port based Oil Industries, Thermal Power Projects and also multi user ports on "BOOT" basis. Realizing the close linkages between the Industry and the Ports, Tamil Nadu Maritime Board encourages setting up of Captive Ports, Jetties and Moorings for the port based industries such as Oil Industries and Thermal Power Projects etc.,

To provide for the investment opportunities for the development of Minor Ports in Tamil Nadu, the Government of Tamil Nadu has formulated and is implementing a minor port development policy since August 2007.

The main highlights of the Port Policy:

The aim of this Board is to promote cordial relationship between the Ports and Industries to ensure development of Ports and industrial growth. It also aims to accelerate the pace of economic growth of the state by developing a number of captive ports through Public Private Participation.

(i) Objectives

- To facilitate establishment of Port based Thermal Power Plants by providing exclusive port facilities to Import Coal, Naphtha, Oil and Natural Gas.
- To provide port facilities to promote export oriented Industries and Port based industries along the coastal districts of Tamil Nadu.
- To decongest Highways and Railways by providing facilities for Coastal Traffic along the East Coast.
- To promote Tourism, Cruises and Coastal trade.
- To provide facilities to encourage ship repairing and construction of floating crafts.

(ii) Policy guidelines - Private Participation :

- With a view to create multi user facilities capable of handling all types of cargo like bulk, break bulk, containers, liquid bulk, petroleum products, chemicals, the Government of Tamil Nadu have decided to develop all the Minor and intermediate ports in the State through Public Private Participation.

Captive jetties:

- In order to satisfy the requirements of industries for allocation of sites for construction of captive jetties for port based industries and create facilities, Government of Tamil Nadu have decided to allow private initiative to construct jetties. Private companies making substantial investment in coastal areas requiring port based facilities will be allotted sites for construction of jetties both captive and commercial.

Approach:

- The private participation in construction / development of ports/ jetties will be encouraged through a well set out transparent procedure and each proposal will be considered on its own merits. The thrust of the policy will be to encourage effective private participation and to that extent the approach in finalizing the proposals will be flexible on a case to case basis.

(iii) Operational Strategy:

- To maintain transparency and to invite competitive bids through Global Tenders.
- To promote the project on the principle of Build, Own, Operate and Transfer (BOOT)
- The period of BOOT will initially be for 30 years and may be extended up to 50 years.
- Will recover a reasonable amount on the cargo handled.

11.6 Port Development Works.

A. Government Ports.

1. Cuddalore Port :

a) The rehabilitation of the Tsunami damaged infrastructures such as rehabilitating and extending the breakwaters and dredging, etc., have been completed in September 2009 with the assistance of Asian Development Funds of Rs. 11.91 crores.

b) M/s. Chemplast Sanmar Limited has developed Marine Terminal Facility (MTF), within Cuddalore port limits, to handle Vinyl Chloride Monomer (VCM) required for the Poly Vinyl Chloride (PVC) factory, established at SIPCOT Complex. 97,268 Metric tonnes of VCM has been handled through 16 ships during the year 2009-10.

c) M/s. Cuddalore Powergen Corporation Limited has proposed to set up a jetty at an approximate cost of Rs. 325 Crores. Vide G.O. Ms. No. 213, Highways and Minor Ports Department, dated 02.09.2008, the port limits of Cuddalore Port has been extended. The coastal land measuring 12.66 acres has been allotted on annual lease basis to the Company. Acquisition of private lands by the company is under progress.

2. Nagapattinam Port :

a) The rehabilitation of the Tsunami damaged infrastructures such as rehabilitating and extending the breakwaters, dredging and construction of cargo sheds have been completed in September 2009 with Asian Development Funds of Rs. 44.64 crores.

During the year 2009-10, the following cargo have been handled at this port.

Cargo	No. of Ships	Quantity (Metric Tonnes)
Edible Oil	12	47,285
Copra cake	2	9,635
Petroleum Products (Bunkers)	1	15,551
Total	15	72,471

b) M/s. Chennai Petroleum Corporation Limited has established a jetty to handle the products of their refinery and are handling cargo through the jetty.

During the year 2009-10, the following cargo have been handled at this jetty.

Cargo	No. of Ships	Quantity (Metric Tonnes)
Crude Oil	24	2,93,915
Naptha	14	1,41,176
Diesel	10	97,393
Total	48	5,32,484

3. Colachel Port :

The Port is located in Kanniyakumari district and very close to the International Shipping route and has sufficient draft to establish a port to handle large ships close the shore. M/s. RITES Ltd., in their "Port Vision 2020" report, had identified Colachel as a suitable port for developing into Container transshipment Hub Port taking into account the above factors. Since this project involves large amount of investment, the Government of India was requested for funding assistance. Government of India informed on 21.07.2009 that the State Government may implement the project.

Tamil Nadu Maritime Board has appointed a consultant on 15.04.2010 and entered into an agreement for the preparation of a Techno Economic Feasibility Report within five months.

B. Captive Ports.

1. Kattupalli Port :

The port limits of this port, near Ennore in Thiruvallur District, have been extended for establishing shipyard cum minor port complex by M/s. L & T Shipbuilding Limited at an estimated cost of Rs.3,375 crores. Coastal land measuring about 77 acres has been allotted to the Company in December 2008. The company has

completed the Rehabilitation & Resettlement activities. Environmental clearance for this project has been issued by Ministry of Environment and Forests. The proposal of declaring Kattupalli as Sea Customs port is under the consideration of Government of India. The Equity and debt funds for the project have been fully tied up. Construction of North breakwater upto 400 m and South breakwater upto 600 m completed. Civil piling works for ship lift and dredging are in progress.

2. Ennore Minor Port :

The port, situated in Thiruvallur district, comprising of the marine structures of Multiple Buoy Mooring System with submarine pipelines for receiving Liquid Ammonia, had been developed by M/s. Coromandel International Ltd., Chennai at a cost of Rs.22.64 crores. During the year 2009-10, 5 vessels called at this port and 44,504 Metric Tonnes of Liquid Ammonia have been imported.

3. Mugaiyur Port :

M/s. Marg Swarnabhoomi Port Private Limited have proposed to develop ship repair facility at a cost of Rs.500 crores at Mugaiyur near Mamallapuram in Kancheepuram District for which the Government have declared Mugaiyur as a minor Port vide G.O.Ms.No. 224, Highways and Minor Ports (HN 2) Department, dated 23.11.2009.

4. Thiruchopuram Port :

M/s. Nagarjuna Oil Corporation Ltd., have been permitted to establish a captive port at a cost of Rs.1800 crores for handling crude and petroleum products from their proposed oil refinery at Thiruchopuram in Cuddalore district. During the year 2009-10, the company imported 9776 Tonnes of Machinery required for the refinery through a temporary jetty.

The company has requested permission to develop this port through their equity partners, viz., Cuddalore Port Co. Pvt Ltd and also to handle other commercial cargo. The company has been requested to modify the assignment agreement and the Licencing and port development Agreement in line with the legal opinion offered on these agreements.

5. Silambimangalam Shipyard Port :

Vide G.O. Ms. No. 183, Highways and Minor Ports Department, dated 23.07.2007, permission has been granted for M/s. Goodearth Shipbuilding Private Limited for establishing a captive shipbuilding yard in Cuddalore district at a cost of Rs.500 crores for building of ships upto 75000 DWT. The Government of India have also notified this as Customs Port.

Further, in-principle approval to establish a Single Super Phosphate Fertilizer Plant within Silambimangalam Shipyard Port area has also been granted. As per the conditions of the Board, the company has submitted the Technical Feasibility Report for the fertilizer Plant and the Technical Feasibility Report for the Shipbuilding yard. The company has now been requested to submit TOR as approved by MOEF, New Delhi, financial closure details, all clearances and No objections etc. , The port construction will commence on obtaining the above approvals.

6. PY-03 Oil Field :

This port, developed at a cost of Rs. 33.62 crores and situated 50 Kms South East off Cuddalore, has been exclusively declared for loading Crude oil being extracted from the oil wells situated at PY-03 Oil Field on to ships. During the year 2009-10, 68,364 Metric tonnes of Crude oil has been loaded through 7 ships.

7. Kaveri Port :

M/s. PEL Power Limited have proposed to establish a jetty near Poombuhar in Nagapattinam District at cost of Rs.200 crores for handling coal for their 1320 MW Power Plant, for which the Government in G.O.Ms.No. 2, Highways and Minor Ports (HN 2) Department, dated 07.01.2010, declared the port limits of Kaveri Port.

8. Vanagiri Port :

M/s. NSL Power Limited have proposed to establish a jetty in Sirkazhi Taluk of Nagapattinam district at a cost of Rs. 250 crores for handling coal for their 1500 MW Power Plant, for which the Government vide G.O.Ms.No. 147, Highways and Minor Ports (HN2) Department, dated 29.07.2009, declared the port limits of Vanagiri Port. Proposal for Customs Notification of this port has been sent to Government of India. Waterfront has been allotted to the company in February 2010.

9. Thirukkadaiyur Port :

M/s. PPN Power Generating Company handles Naphtha and Natural gas through this port, declared in the year 1996 required for their 330 MW gas combined Cycle Power Project established at Pillaiperumalnallur near Thirukkadaiyur in Nagapattinam district .

During the year 2009-10, the following cargo have been handled at this port.

Naphtha	22 ships	2,62,147 Metric Tonnes
Gas		61,419 Metric tonnes
Crude oil		3,090 Metric Tonnes
Total	22 Ships	3,26,656 Metric Tonnes

In G.O.Ms.No. 16, Highways and Minor Ports Department, dated 20.01.2010 the port limits of Thirukkadaiyur port have been extended to accommodate the landfall point of gas pipelines of M/s. Hindustan Oil Exploration Company Ltd.,

10. Thirukkuvalai Port :

M/s. Tridem Port and Power Company Private Limited, has proposed to establish a port near Vettaikkaran Iruppu in Nagapattinam district at a cost of Rs.650 crores to handle coal required for their proposed 2000 MW Merchant Power Plant, for which the port limits have been declared. 276 acres of port land has been allotted to this company on annual licence basis for creating the marine facilities. The company has submitted a Detailed Project Report. The company has been requested to submit approval from MOEF, New Delhi for establishing the port.

11. Manappad Port :

The Government have declared Manappad in Thoothukudi district as a Minor Port to be established at a cost of Rs. 1800 crores for handling LNG for the proposed 2000 MW Gas Turbine Power Project to be set up by M/s.Indian Power projects Ltd., at Vembar. 100 acres of port land has been allotted for construction of marine facilities. Financial closure for this project is to be finalised soon.

12. Koodankulam Port :

Koodankulam port in Thirunelveli district was declared for the captive use of M/s Nuclear Power Corporation of India Ltd., for their proposed Nuclear Power project at Koodankulam consisting of 2 units of 2000 MW each.

A dyke with a length of 1 KM and a breadth of 500 m for storing seawater required for the power plant and a RCC Jetty with necessary breakwater protection established at a cost of Rs. 3.40 crores for receiving Machineries have been constructed. During the year 2009-10, 231 Metric tonnes of machineries have been handled at this port.

11.7 Ports announced and under consideration :

1. Port near Panaiyur :

M/s. Coastal Tamil Nadu Power Limited has been granted an in-principle approval for developing a captive port at Panaiyur near Cheyyur in Kancheepuram district for handling coal required for their proposed 4000 MW Ultra Mega Power Project. Based on the discussion in the meeting of Expert Appraisal Committee on CRZ, held on 20.07.2009, Ministry of Environment and Forests (MOEF), New Delhi has suggested to look for an alternate site in view of the existing Eco-sensitive area. Based on the suggestion of the MOEF, New Delhi and as per the request of M/s. PFC Consulting Services Ltd, vide their letter dated 26.08.2009, in-principle approval for establishing a captive port at Panaiyur village south of Mudaliarkuppam in Kancheepuram district has been granted with a condition to submit the Techno Economic Feasibility Report. Application for TOR has been filed by the company with the Ministry of Environment and Forests, New Delhi.

2. Parangipettai Port:

M/s. IL&FS Limited has been granted an in-principle approval on 19.06.2008, for developing a captive port in Cuddalore district at a cost of Rs. 1300 crores, to handle coal for their proposed 4000 MW Merchant Power plant. The request of the company to declare the port limits is under consideration of Government.

3. Udangudi Port :

M/s. Udangudi Power Corporation Limited, Chennai has been granted in-principle approval on 06.07.2009 for establishing an open sea jetty at a cost of Rs. 600 crores to receive coal for their 1600 MW Udangudi Super Critical Thermal Power Project and also for establishing (1) Circulating water inlet tunnel and intake (2) Circulating water outlet and (3) temporary facilities for unloading project cargo (Barge jetty) at Udangudi near Thiruchendur in Thoothukudi district. The company has engaged National Institute of Oceanography (NIO), Goa as their consultant to prepare the Detailed Project Report. NIO, Goa are in the process of finalising their jetty alignment.

11.8 Tamilnadu Maritime Academy

The Tamil Nadu Maritime Academy was established at Thoothukudi and inaugurated on 16.09.1998 is functioning under Tamil Nadu Maritime Board as per the orders issued in G.O.Ms.No.196, Highways and Minor Ports Department, dated 01.08.2008. The Academy has so far conducted 15 batches of pre-sea rating course. Initially, the Academy conducted separate Seaman and Engine Rating Training courses. At present it is conducting General Purpose Rating training Course instead of separate Deck and Engine Rating Crew with 40 trainees per batch. The Academy is also conducting five STCW-95 courses namely, "Personal Survival Techniques", "Elementary First Aid", "Personal Safety and Social Responsibility", "Oil Tanker Familiarization" and "Fire Prevention and Fire Fighting".

This academy has continuously achieved 100% pass in the last six batches. In recognition of the 100% result in the previous 5 examinations, the Board of Examinations for Seafarers Trust, which was authorised by the Directorate General of Shipping, Mumbai, for

conducting the All India Exit Examinations for such courses, has recognised the consistent successful performance of Tamilnadu Maritime Academy, Thoothukudi and has awarded them a **Certificate of Appreciation of service as a most consistent performing institute in India** on 30.10.2009.

11.9. New Administrative Office Building for Tamil Nadu Maritime Board

Tenders have been invited for the construction of new Administrative Office Building for Tamil Nadu Maritime Board at Greenways Road at a cost of Rs. 8.25 crores.

XII. POOMPUHAR SHIPPING CORPORATION LIMITED

Poompuhar Shipping Corporation Limited (PSC) was formed on 11.04.1974 under the Companies Act, 1956 with the objective of transporting the entire coal required for the Thermal Power Stations of Tamil Nadu Electricity Board (TNEB).

12.1. Coal Handling Ports

The coal required by TNEB is transported through own and chartered ships from the Ports at Haldia, Paradip and Visagapattinam and discharged at Thoothukudi and Ennore ports.

12.2. Own ships and chartered ships

Poompuhar Shipping Corporation Ltd. had acquired 3 specially designed shallow draft geared bulk carriers viz. M.V Tamil Anna, M.V Tamil Periyar and M.V Tamil Kamaraj between August 1985 and January 1987. With these own ships, the coal required by TNEB is being transported to its Thermal Power Stations. Apart from this, based on the requirement, Ships are being chartered on contract basis from Shipping Companies registered in India and abroad. For the year 2009-10, PSC has chartered seven ships from private Companies.

12.3.1 Coal movement

During 2009 – 10, this corporation has transported 127.79 lakh M.Ts of coal to the Thermal Power Stations out of 128.34 Lakh M.Ts which has been allotted by Coal India Ltd. to TNEB and received at the ports.

12.3.2 Performance during previous years

The details of the quantity of coal moved, turnover and profit of the Corporation for the previous years are given below:

During the years 2001 to 2006, this Corporation had incurred a net loss of Rs.8.91 crores. This Corporation has earned net profit of Rs.4.94 crores for the period from 2006-07 to 2008-09 and is expected to earn profit of Rs.3.24 crores during last year.

2006-07 to 2009-10

Year	Quantity moved (in Lakh MT)	Turnover (Rs in Crores)	Net Profit (Rs in Crores)
2006-2007	131.74	391.51	(+) 0.08
2007-2008	133.90	548.90	(+)1.94
2008-2009	133.11	684.62	(+) 2.92
2009-2010	127.79	442.15 *	(+) 3.24 *

* Estimated

During 2010-11, it is expected to move entire quantity of coal of about 138 lakh M.T allotted by Coal India Limited to Tamil Nadu Electricity Board.

12.4. Kanyakumari Ferry Service

PSC is operating Passenger Ferry Services from the shore at Kanyakumari to the Ayyan Thiruvalluvar Statue and the Vivekananda Rock Memorial. PSC had purchased two new ferries namely M.L.Guhan and M.L.Pothigai during the previous financial year. Since three ferries are in operation along with the existing ferry M.L.Baghirathi, Tourists are being ferried to Vivekananda Rock memorial and Ayyan Thiruvalluvar Statue without waiting for long time.

Physical and Financial Performance of the Ferry Service for the last four years are given below:

Year	No. of Ferries	No. of Passengers (In lakhs)	Fare collection (Rs. in lakhs)	Profit (Rs. in lakhs)
2006-07	2	14.79	287.45	52.01
2007-08	2	16.65	324.09	50.34
2008-09	3	18.48	359.73	75.75
2009-10	3	19.23	376.63	50.00 (estimated)

Vellakovil M.P.Saminathan,
Minister for Highways and Minor
Ports.

HIGHWAYS AND MINOR PORTS

DEPARTMENT

DEMAND NO - 21

POLICY NOTE

2010 -2011

HIGHWAYS AND MINOR PORTS DEPARTMENT

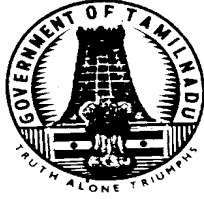
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HIGHWAYS AND MINOR PORTS DEPARTMENT
DEMAND NO-21
POLICY NOTE ON
ROADS, BRIDGES, MINOR PORTS AND SHIPPING

POLICY NOTE
2010-2011

Vellakovil M.P.Saminathan,
Minister for Highways and Minor Ports

GOVERNMENT OF TAMIL NADU

2010