

HIGHWAYS DEPARTMENT

DEMAND NO: 21

POLICY NOTE 2007 – 2008 ROADS, BRIDGES, MINOR PORTS AND SHIPPING

1. INTRODUCTION

1.1. Tamil Nadu is the 11th largest State with an area of 1,30,058 Sqkm out of country's total area of 3166416 Sqkm and the third most urbanised State next to Maharashtra and Gujarat. Road network of the state influences considerably the economic development, population distribution, size of cities and towns, environmental quality, energy consumption, access to social infrastructure and above all the quality of life. Only with efficient road network, other development programmes can give expected results.

1.2. As on 31.03.2007, the total length of road in Tamil Nadu is **1,88,700 Km**, of which **61446 Km** length of roads are maintained by Highways Department. Tamil Nadu is in the forefront in developing road infrastructure. The density of road network in Tamil Nadu is **286 Km** per lakh of population which is higher than the all India average of **258.20 Km** and **137 Km** per 100 Sq.Km area as against the all India average of **74.90 Km**. Roads in Tamilnadu are broadly grouped under two categories viz. (a) Government Roads and (b) Village roads and others. Realising the importance of developing and maintaining a good network of roads, for the first time in India, a separate department for Highways was formed at the State level, as early as in April 1946 and the Department has completed platinum jubilee year.

1.3. The total length of Government roads is 61,446 km. The details are as follows

i) Category of Roads	Length in Km
a) National Highways	- 4483
b) State Highways	- 9256
c) Major District Roads	- 9451
d) Other District Roads	- 38256
(including 1746 Km of sugarcane roads)	
ii) Details of bridges	Nos.
a) Major Bridges	- 1209
b) Minor Bridges	- 7692
c) Culverts	- 99518
d) Railway Over / Under bridges	- 220

Major portion of National Highways are maintained by National Highways Authority of India and remaining stretches are maintained and improved by State Government with the funds allocated by Government of India. State Highways, Major District Roads and Other District Roads are maintained by the Highways Department with state funds.

2. VISION AND MISSION OF THE HIGHWAYS DEPARTMENT

2.1. The Vision of the Department is, “**To be customer focused, applying innovation, best practices, appropriate technology and responsible management of internal and external resources**”

2.2. Mission of the Department is, “**To provide a safe, efficient and environmental friendly road network, that contributes to the sustainable economic development and social well being of the state**”

3. GOALS

To achieve the above vision, the department has the following goals for managing, maintaining and upgrading the road network.

- ❖ To improve the road net work including widening and improvement of roads with better riding quality as per Indian Roads Congress standards
- ❖ To improve connectivity between rural areas and towns/marketing centres
- ❖ To provide better connectivity to industrial clusters/towns
- ❖ To rehabilitate distressed bridges and provide bridges in un-bridged crossings, railway level crossings, Widening narrow with priority to Bridges in Delta Districts
- ❖ To introduce road management system thereby develop data bank for core network and to give focus on total road management;

STRATEGIES

- ❖ To re-organise the department and to improve the efficiency in its working
- ❖ To widen all State Highway stretches in the State to two lane in a phased manner
- ❖ To identify Major District Roads stretches with heavy traffic and widen those stretches on priority basis
- ❖ To give priority for connectivity to Adi Dravidar and Tribals habitations in Other District Roads and Panchayat union roads
- ❖ To improve the bus plying village roads which connect the villages having 500 – 1000 population to the standards of Other District Roads with NABARD assistance and State funds
- ❖ To relieve traffic congestion by providing radial roads, ring roads, bypasses, ROBs/RUBs
- ❖ To reduce of accidents, identify new areas of development and improve the road infrastructure
- ❖ To formulate road safety action plan and improve the identified Black spots to reduce casualties in the road accidents
- ❖ To develop potential road stretches under Public - Private – Partnership
- ❖ To improve drainage in road stretches wherever necessary and facilitate free flow of traffic
- ❖ To maintain road side trees in Government roads and plant new saplings

4. INSTITUTIONAL STRENGTHENING AND IMPLEMENTATION OF ACTION PLAN

The Highways Department, established in 1946 exclusively to improve the road network, has been functioning efficiently for the past 61 years. With a view to improve the roads to international standards and to deliver cost effective roads, it has become necessary to strengthen the Department. The World Bank has come forward to assist in strengthening the Highways Department under Tamilnadu Road Sector Project.

As part of the project, M/s Booz Allen Pty Ltd, were appointed as consultants as per guidelines of the World Bank to study the existing systems both in establishment and technical aspects and they submitted the recommendation in 1999. To implement the above suggestions, M/s SMEC International Pty Ltd were appointed in 2004. The consultants have submitted an implementation strategy. The salient features of the report are as follows

4.1. Reorganization of the existing structure

- a. Creation of post of Director General to coordinate among Chief Engineers
- b. Transfer of the existing establishment powers of Chief Engineer General to Director General
- c. Entrust the maintenance and operations of the roads under the Chief Engineer (Maintenance and Operations)
- d. Redistribution of field officers among various wings

4.2. Modernization of the Highways Department

- a) To Modernize the department with the developing Information Technology by computerising the department
- b) To strengthen the department by providing computers upto Assistant Divisional Engineers office

4.3. Creation of goals for the department

- a) To implement Improved Quality Management Policy
- b) To adopt Environmental Policy
- c) To enforce Road Safety policy
- d) To revamp Financial and Planning Procedures
- e) To publish Highways Quarterly Bulletin

The suggestions of M/s SMEC International Pvt. Ltd. are under consideration of the Government. After examining the merits and demerits of the above, the implementation will be decided shortly.

4.4. Redistribution of schemes among Various Wings

As part of restructuring the department, Government have ordered redistribution of implementation of schemes among various wings of the Highways department as detailed below:

a) General Wing

- Establishment matters of all staff in highways Department
- Budget of Highways Department (all wings)
- Maintenance of State Highways, Major District roads and Other district roads).
- Implementation of Part –II schemes
- Flood and Calamity Relief Works, Tsunami Relief works
- Comprehensive Road Infrastructure Development Programme

- Chennai Metropolitan Development Programme (Road works)
- Public Private Partnership Projects and
- Any other matter which Government may entrust from time to time.

b) National Highways Wing

- National Highways original works and maintenance of roads and bridges on National Highways
- Revamped Central Road Fund works
- Hill Area Development Programme
- Western Ghat Development Programme
- Tribal area Development Programme,
- Bharat Nirman
- Economic and Interstate Importance Programme
- All other centrally sponsored schemes and
- Tamilnadu Urban Development Project - III.

c) NABARD and Rural Roads Wing

- Roads and minor bridge works with NABARD assistance
- Improvement and maintenance of Panchayat and Panchayat Union roads taken up with NABARD assistance
- Tsunami Relief works with the assistance of Asian Development Bank.

d) Projects Wing

- Major Bridge works under State fund and under NABARD assistance
- Sugarcane Road Development Programme
- Bridge/Grade separator works under Chennai Metropolitan Development Programme
- Road Over and Under Bridge works under Railway Works Programme
- Radial roads scheme

e) Designs and Investigation Wing

- Carrying out investigation for new bridges/roads
- Preparation of designs
- Preparation of Structural drawing and estimates for bridge works costing Rs. 2 crores and above
- Any other matter which Government may entrust from time to time.

f) Highways Research Station

- Matters relating to Research activities in Highways Research Station
- Quality Control activities
- Setting up regional laboratories and
- Road safety and transport development
- Any other matter which Government may entrust from time to time.

g) Tamilnadu Road Sector Project Wing

- Works under Tamilnadu Road Sector Project
- Enhanced Maintenance works under Tamil Nadu Roads Sector Project
- BOT schemes under Tamilnadu Road Sector Project
- Bridge works with World Bank assistance.
- Strengthening the organisation set up and implementation of action plans.

4.5. Delegation of Powers

As a second step in the direction of reorganisation of the Department, Government have ordered delegation of powers of various officers of Highways Department for according Technical sanction and approval of tenders as detailed below:

S. No	Authority	Existing powers	Enhanced powers
a) Technical Sanction of Estimates			
1	Divisional Engineer	Upto Rs.30 lakhs	Upto Rs. 50 lakhs
2	Superintending Engineer	Upto Rs.1.00 crores	Upto Rs.2.00 crores
3	Chief Engineer	Above Rs.1.00 crores	Above Rs.2.00 crores
b) Tender acceptance			
1	Divisional Engineer	Upto Rs. 6.00 lakhs (upto 5% excess)	Upto Rs. 15.00 lakhs (upto 3% excess)
2	Superintending Engineer	Upto Rs. 6.00 lakhs (upto 10% excess) upto Rs.30.00 Lakhs (upto 5% excess)	Upto Rs. 15.00 lakhs (upto 6% excess) upto Rs. 100 lakhs (Upto 3% excess)
	Pre qualification of Tenders	Above Rs.1.00 Crore	Above Rs.2.00 crores
3	Chief Engineer	Upto Rs.30.00 lakhs (upto 10% excess) upto Rs.100.00 lakhs (upto 5% excess)	Upto Rs.100.00 lakhs (upto 6% excess) upto Rs.200.00 lakhs (Upto 3% excess)
4	Board of Engineers	Above Rs. 100.00 Lakhs (upto 10% excess)	Above Rs.50.00 Lakhs (above 6% excess)
5	Commissionerate of Tenders	Above Rs. 1.00 Crores	Powers not given in Sl.No.3 and 4, (3% or 6% as per enhanced limits). Above Rs.2.00 crores

5. Comprehensive Road Infrastructure Development Programme (CRIDP)

Under the Comprehensive Road Infrastructure Development Programme, the State Highways, Major District Roads and Other District Roads are taken up for widening and strengthening as per IRC standards in a phased manner. The details are as follows:

5.1. State Highways

The State Highways are arterial routes of the State, linking district headquarters and important towns within the State and connecting them with National Highways or Highways of the neighbouring States. It is proposed to strengthen a minimum of 75% of State Highways to IRC standards. With this as objective, action is taken to widen all the state highways to two-lane in a phased manner.

The total length of State Highways in Tamil Nadu is 9256 km including 2663 Km length of roads upgraded during last year, of which 4978 km length of roads are of multi/double lane, 4278 Km length of roads are intermediate/single lane.

During 2006-07, Government accorded sanction in phase-I, for widening 664 Km length of single/ intermediate lane roads to two lane, 169 Km of single lane roads to intermediate lane roads, 29 Km double lane roads to multi lane and strengthening 217 Km of State Highways at a cost of Rs. 283.80 crores. Apart from this, 987 Km of spill over works and 500 Km of new works, totally 1487 Km of road works were completed last year incurring an expenditure of Rs. 241.19 crores.

During last year, the Government have also sanctioned in phase-II, widening of 326 Km of single/ intermediate lane to two lane, 67 Km of single lane to intermediate lane, 17 Km of double lane to multi lane, and for strengthening 29 Km of roads at a cost of Rs. 126.18 crores. All these works and the spill over works on hand will be completed in the current year. A provision of Rs.356.97 Crores has been made in the current year for these works.

After the completion of all the above sanctioned works, there will be 6204 Km of double lane and 3052 Km of intermediate/single lane on State Highways. It is proposed to take up about 750 Km for widening during 2007-08.

5.2. Major District Roads

Major District Roads connect production centres with marketing centres and connecting these centres with the important highways. It is proposed to improve a minimum of 65% of these roads to IRC standards. With this as target, this Government proposed to convert the Major District Roads from single lane to two/intermediate lane in a phased manner.

During last year, out of the total length of 9451 km of Major District Roads including 3812 km of roads upgraded, 2033 km was of multilane/double lane, 7418 km are of intermediate/single-lane.

During 2006-07, Government accorded sanction for widening of 525 Km of single/intermediate lane to double lane, widening 634 Km of single lane to intermediate lane, widening 4 Km of double lane to multi lane, strengthening of 226 Km and for construction/ reconstruction of 26 culverts at a cost of Rs.294.80 crores.

Further, 1089 Km of spill over works and 400 Km of new works totally 1489 Km length of road works were completed last year incurring an expenditure of Rs.240.48 crores.

The Government also accorded sanction under Phase-II last year for widening of 185 Km of single/ intermediate lane to two lane, 244 Km of single lane to intermediate lane and for strengthening 43 Km of Major District Roads at an outlay of Rs. 103.33 crores. All these works and spill over works will be completed in the current year. A provision of Rs. 370.81 crores has been made for the current year.

After the completion of all the above works, there will be 2537 Km of double lane and 6707 Km length of intermediate lane/single lane stretches.

5.3. Other District Roads

The Other District Roads connect rural production centres and marketing centres with Taluk headquarters and other main roads nearby.

The total length of Other District Roads is 38256 km, which includes 1746 Km Sugarcane roads improved under sugarcane cess fund. Most of the Other District Roads are of single lane. It is proposed to improve a minimum of 50 % of these roads to IRC standards in a phased manner.

During 2006-07, Government sanctioned widening of 28 Km of single/intermediate lane to two lane, widening of 174 Km of single lane carriageways to intermediate lane, strengthening 1153 km to IRC standards and construction of 27 culverts and bridges for Rs. 143.80 crores.

During last year, 1870 Km of road works including spill over works were completed, by incurring an expenditure of Rs. 160.04 crores. The balance works will be completed during the current year. A provision of Rs.148.25 crores has been made for these works in the current year.

5.4. Special Scheme to Improve Connectivity to Adi Dravida Habitations

Under the Comprehensive Road Infrastructure Development Programme, scheme for provision of connectivity to Adi Dravidar habitations was introduced for the first time in 2006-07. As a part of Schedule caste sub-plan, Other District Roads leading to hamlets where Adi Dravidar population is more than 50% are taken up for improvements under this scheme. The Government sanctioned, an amount of Rs.125.98 crores for widening/ improving 997 Km of Other District Roads benefiting Adi Dravidar population.

During last year, 300 Km of roads were completed, incurring an expenditure of Rs.35.37 crores and the balance works will be completed this year. A provision of Rs.85.97 crores has been made in the current year, for these works.

6. PART II SCHEME

Under the Part II scheme for 2006-07, the Government also sanctioned works to the tune of Rs.30.10 crores for taking up 9 bridge works and 19 road works. Out of these works and spill over works of the previous year, a total of 19 bridge works and 30 km length of road works have been completed incurring an expenditure of Rs.24.85 Crores. Other works are in progress and will be completed during current year.

Under Part II scheme for the year 2007-08, it has been proposed to take up new works to the tune of Rs.10.00 Crores. The details are given below.

(Cost Rs. in crores)

S. No.	Scheme	Bridges		Roads		Total	
		No.	Cost	No.	Cost Rs.	No.	Cost Rs.
1	State Highways	1	0.40	3	3.40	4	3.80
2	Major District Roads			2	0.75	2	0.75
3	Other District Roads			1	1.50	1	1.50
4	Rehabilitation of distressed bridges	1	3.40			1	3.40
5	Research & Development					4	0.20
6	Tools and Plant					9	0.35
	Total	2	3.80	6	5.65	21	10.00

An allotment of Rs.54.64 crores has been made in the current year for balance works and new works.

7. IMPORTANT SCHEMES SANCTIONED DURING 2006-07

As a follow up of the announcements made by the Government the important works sanctioned are given below

7.1. High level bridge in Thittakudi

The government have sanctioned, as a special case, for construction of a high level bridge across Vellar on Thittakudi Town Panchayat at a cost of Rs.3.15 crores. Preparation of estimate is in progress and works would commence in the current year.

7.2 Thiruppur Ring Road - Phase II

In view of heavy traffic congestion in Thiruppur town, the Government have sanctioned improvement of road infrastructure in and around Thiruppur town and formation of Ring Road at a total cost of Rs.70 crores. Under this scheme, construction of 2 Railway Over Bridges, 6 High level Bridges and improving 98.60 Km length of roads including 14 km of Panchayat Union roads have been taken up. All these works are in progress and are expected to be completed during 2007-08. Railway Over Bridge works will commence after completion of investigation and receipt of concurrence from Railways.

7.3. New bridge at Vridhachalam

The brick arch bridge constructed about 126 years ago across Manimuktha River collapsed during the heavy rain on 13-11-2004. The Government accorded administrative sanction for the construction of a new four-lane bridge at the same alignment at a cost of Rs.5.75 crores, The bridge and other works have been completed.

7.4. Thuraiyur Bypass

To reduce the travel time and to ease traffic congestion, Government have sanctioned formation of a bypass for a length of 3.6 Km around Thuraiyur town in Musiri- Thuraiyur- Athur road at a cost of Rs.3.84 crores. Land acquisition is in progress and bypass work would commence after the completion of land acquisition.

8. SPECIAL INDUSTRIAL CORRIDORS

8.1 IT Expressway

The widening and improvement of road from Madhya Kailash in Chennai to Siruseri for a length of 20.10 km along with 2 km length of East Coast Road link road has been undertaken by the IT Expressway Limited (ITEL) which is a subsidiary of TNRDC. The above road is designed at international standards with 6 lane, 2 non-motorised lane and 2 service lanes. Landscaping will be provided in the center median and along service road wherever space is available. Further, this road will have value added services like Highway Patrol, 24 hour Ambulance service, help line, tow away vehicle etc. It is also proposed to plant trees wherever feasible.

The funds required for this project will be mobilised by the Tamil Nadu Road Development Company itself and will collect toll for a specified period. The Government have

sanctioned Rs.43 crores for meeting land acquisition cost and an additional amount of Rs.36.76 crores has also been sanctioned. This year under Milestone-I road works for a length of 3 km have been completed. Works are in progress in the rest of the reaches. Action is being taken to speed up and complete these works within this year.

The IT Expressway will provide better connectivity to all the IT companies situated on both sides of the road and will also promote growth in industrial sector and generate substantial employment opportunities.

8.2. IT Expressway Extension

The Government announced during the last budget session that IT Expressway will be extended upto Mamallapuram. Accordingly, Rs.70 Crores has been initially sanctioned for land acquisition and for improving the road from Siruseri to Mamallapuram for a length of 25.3 Km (under Phase-II) of the IT Expressway. Investigation works are in progress and after completion of land acquisition, the road works would be taken up.

8.3. Road Infrastructure Development in Oragadam Industrial Park

The Government announced during last year a distinguished expressway is to be developed in the state. Industrial parks, Special economic zones, IT parks and integrated Townships will be located along the Expressway which will connect Airports and Ports. As a part of this mega project, infrastructure development plan for Oragadam industrial park is being prepared.

Under this scheme, as an industrial park and industries are being developed in Oragadam area in between the NH4 and NH45, the Government have sanctioned the scheme for widening and strengthening the following roads at a cost of Rs.300 crores to develop the road infrastructure in the area:

- a) Singaperumalkoil – Sriperumbudur road
(Km 0/0-24/6) : 24.60 Km
 - b) Vandalur – Walajabad road
(Km 30/4-63/8) : 33.40 Km
- Total : 58.00 Km**

The details of the works are given below:

Detailed Project Reports are being prepared through consultants for widening Singaperumalkoil-Sriperumbudur road and Vandalur-Walajabad road, and the 12.6 Km stretch of road from Singaperumalkoil to Oragadam junction connecting NH 45 and NH4, to four lane and widening of 12 Km stretch from Oragadam to Sriperumbudur to six lane and widening of 20 Km stretch in Vandalur-Walajabad road from Vandalur to Oragadam to four lane, and Strengthening 13.4 Km length of two lane stretch from Oragadam to Walajabad and construction of over bridge at Oragadam junction.

On receipt of Detailed Project Reports, action will be taken to acquire lands through Revenue Department. The Government have sanctioned Rs.56 crores for meeting land acquisition cost and after finalization of land acquisition proceedings, the road works will be taken up for execution in the current year. A provision of Rs. 20 crores has been made in the current year for road works.

9. CHENNAI METROPOLITAN DEVELOPMENT PLAN (CMDP)

This programme is fully funded by the State Government. Under this scheme, 254 works costing Rs.756.26 crores have been taken up for Traffic and Transport Improvement in Chennai

City and metropolitan areas from the year 2003-04, of which 49 works alone were completed till 2005-06 at a cost of Rs.20.40 Crores.

During last year, 7 road works for a length of 28.97 km, 4 bridge works and 5 works under the scheme of Chennai beautification have been completed incurring an expenditure of Rs. 88 crores. Balance of 113 road works for a length of 479.92 km and 76 bridge works are in various stages of progress.

During the year 2005-06, sanction was accorded for construction of 6 road over bridges, one Railway over bridge and 4 River bridges, totally 11 bridges at a cost of Rs.219 crores. Among these, high level bridge in Marmalong bridge – Irumbuliyur road near Pallikaranai and widening of bridge across Buckingham canal will commence soon. For 2 Road over bridges and for one Railway over bridge, Detailed Project Reports and estimates have been received from the consultants. Action will be taken to implement these works in the current year.

For other works, Detailed Project Reports are under preparation through consultants. Among them, 3 works fall in the alignment of Metro Railway Project. As the finalization of alignment is nearing completion, the investigation works will be completed and structural works will be taken up after calling for tenders.

A provision of Rs.250.10 crores has been made in the current year for these works.

10. ROAD SAFETY ACTION PLAN

It is proposed to formulate and implement road safety action plan, to reduce road accidents involving pedestrians, cyclists and buses. A minimum reduction of 2% of the accident rate would save more lives and the Highways department has taken steps for the reduction of accidents caused by deficiency in road. It is proposed to take the following steps in this regard to improve and update the accident data collection and analysis system for scientific research and enhance the mechanism for sharing data among user-departments.

- ❖ To undertake scientific research, sharing of statistics related to accident among user Departments, collect and analyse accident data,
- ❖ To introduce a system of road safety measure; identifying accident prone areas and taking remedial action, implementing design and structural techniques.
- ❖ To strengthen the Traffic Engineering Cell with adequate technical staff and modern equipments.
- ❖ To avert accidents due to speed breakers, providing new and uniform speed breakers at road junctions wherever necessary.
- ❖ To carryout improvements to 50 black spots with latest technology on priority basis at a cost of Rs.37.89 crores, out of 300 spots identified as accident prone in Tamilnadu.

10.1. Providing speed breakers to standards

It was observed that non-standard speed breakers in many locations was one of the major cause for some of the fatal accidents. Hence it is decided to provide uniform speed breakers through out the State. As an immediate measure, 1468 non-standard speed breakers have been identified and 982 of them have been modified as per standards and conversion of the balance 586 speed breakers are in progress.

To avoid accidents due to non-standard speed breakers in the roads, action will be taken to provide and maintain new type of speed breakers uniformly wherever necessary especially at the junctions. It is proposed to provide speed breakers in all cross roads joining the main roads.

10.2. Improving Black Spots

300 black spots which are accident prone have been identified in Tamil Nadu and improvement works have been taken up in 50 spots. In 4 packages works are in progress and for another 18 packages bids have been called for. These works will be taken up soon. In the balance areas improvement will be taken after acquisition of lands. It is also proposed to improve some of the black spots from State funds.

10.3. Road Signages

To guide the vehicle road users properly, necessary action will be taken to provide traffic signs, marking of uniform colour and size as per IRC standards in all the Government roads in a phased manner.

11. IMPROVED MAINTENANCE OF ROADS

11.1. To preserve huge public investments in highways, their timely upkeep and maintenance is necessary. Proper maintenance of roads has the following benefits:

- reduces the rate of deterioration, extends the life of road and preserves the assets created;
- reduces vehicle operation costs by providing good riding quality;
- keeps roads fit for traffic even during monsoon season; and
- helps ensure safety of the road user.

11.2. Maintenance of roads is of four categories viz., Ordinary Repairs, Periodical Renewal, Special Repairs and Emergency Repairs. The Government of India have laid down certain norms for allocation of funds for the maintenance of roads. In the past, adequate funds were not allocated for maintenance works; but from last year, the allotment has been increased substantially.

11.3. During 2006-07, total of Rs. 801.37 crores was allotted for the maintenance of roads and bridges, of which Rs.525.25 crores was allocated for Government roads, Rs.160 crores for the maintenance of Panchayat and Panchayat Union Roads that were improved during 1996 to 2001 with NABARD loan assistance and Rs.103.60 crores for the maintenance of Panchayat and Panchayat Union Roads through Rural Development Department and Rs.12.52 Crores for the maintenance of sugar-cane roads. Making use of the above fund, 6283 Km length of Government roads, bridges and other maintenance works have been taken up during last year.

11.4. Further, 5521 Km length of Panchayat and Panchayat Union Roads were improved during 1996 to 2001 with NABARD loan assistance but were not maintained subsequently. Hence, Government decided to take up maintenance of these roads during last year and accordingly, 2000 Km length of roads were renewed in 2006-07.

During the current year, total amount of Rs. 826.26 crores has been allotted for maintenance of roads, of which Rs.509.51 crores will be utilised for Government roads, Rs.200 crores for the maintenance of Panchayat and Panchayat Union Roads and Rs.103.60 crores for the maintenance of Panchayat and Panchayat Union Roads by the Rural Development department and Rs.13.15 Crores for sugarcane roads.

12. NABARD ASSISTED SCHEMES

12.1. Improvement to Major District Roads and Other District Roads

Under this scheme during 2006-07, spill over works of 1242 km of roads and 17 bridges were taken up for improvements. Of which, 1046 km length of road works and 9 bridge works have been completed incurring an expenditure of Rs. 83.77 crores. The balance length of 196 km of road works and 8 bridge works will be completed during the current year.

A provision of Rs.20.64 crores has been made in the current year for this scheme.

12.2. Construction of Bridges in Government Roads

During 2006-07, sanction was accorded by Government for reconstruction of 265 bridges and strengthening 6 roads for a length of 31.00 Km in Government Roads at an outlay of Rs.120.34 crores with NABARD loan assistance for implementation through regular wing of Highways Department. The Government have now decided to entrust all the NABARD assisted works to a single agency and accordingly, in the current year, NABARD and Rural Roads wing has been entrusted with the implementation of the works except works which have already been completed. Against these works, 150 bridge works are expected to be completed in the current year.

A provision of Rs. 66 crores has been made in the current year, for this scheme.

12.3. Rural Road Scheme

Under this scheme, Panchayat and Panchayat Union Roads connecting villages with a population between 500-1000 are taken up for improvements to ODR standards. The roads which provide access to the nearby schools, marketing centers, and main roads are improved as BT roads on priority basis under the scheme. Since the inception of this scheme, BT roads connectivity has been given to 1790 habitations covering a length of 4029 km of roads and 47 bridges at a cost of Rs.434.27 crores. The balance of 117.40 km length of roads and 6 bridges at a cost of Rs.19.90 crores are in progress. All these works will be completed during current year.

In addition, the Government have sanctioned 477 km length of new road works and construction of 14 bridges at a cost of Rs. 96.64 crores during last year. These works will also be completed during the current year.

Further, proposals have been submitted to NABARD for improvement of 655 km of road works and construction of 31 bridges at a cost of Rs.146.12 crores, which are under consideration of NABARD. On receipt of approval from NABARD, these works will be taken up for implementation.

An allotment of Rs.135 Crores has been made in the current year for this scheme.

12.4. Scheduled Caste Sub-Plan

Under the Scheduled Caste Sub Plan, villages where the Adi-Dravidar population is more than 50% of the total population are being given connectivity with BT roads. Since the inception of this scheme, 1366 km of road works and 26 bridges have been completed at a total expenditure of Rs.141.20 crores. 647 Adi-Dravidar villages have been given BT road facilities.

Further, a new project was sanctioned last year for 94 km length of roads and 6 bridges at a cost of Rs.25.47 crores under this scheme. These works will be completed during current year.

Apart from the above, proposals have been sent to NABARD for improvement of 158 km length of roads and construction of 9 bridges at a cost of Rs.34.65 crores, which are under the consideration of NABARD. On receipt of approval from NABARD, works will be taken up for execution.

An allotment of Rs.30.06 crores has been made for the scheme for the current year.

12.5 Bus Route Improvement Scheme

Under this scheme, Panchayat and Panchayat Union roads where buses are plying for more than three years are improved as BT roads to conform to other district roads standards. Since the inception of this scheme, 2747 km length of roads and 48 bridges at a cost of Rs.247.44 crores have been completed so far.

During last year, under this scheme sanction was accorded for improvement of 312 Km length of roads and construction of 7 bridges at a cost of Rs.62.92 Crores. These works will be taken up for execution during the current year.

Further, proposals have been submitted to NABARD for improvement of 148 km length of roads and construction of 7 bridges at a cost of Rs.41.54 crores, which are under consideration of NABARD. Action will be taken to commence the works after obtaining approval from the Bank.

An allotment of Rs.66.30 crores has been made for this scheme, in the current year.

12.6. Improvement of bus plying Panchayat and Panchayat Union Roads.

During 2005-06, the Government have accorded administrative sanction for improvement of 1243 km of bus plying Panchayat and Panchayat Union Roads and for construction of 6 bridges at a cost of Rs. 116.67 crores. Of the above works, 697 km length of road works and 2 bridge works have been completed incurring an expenditure of Rs.80.75 crores. The balance of 546 km length of road works and construction of 4 bridges are in various stages of progress. All these works will be completed during the current year.

A provision of Rs.18 Crores has been made in the current year for these works.

12.7 Construction of Bridges in Cauvery Delta Areas

During the period from 2003 to 2006, the Government sanctioned Rs.83.23 crores for construction of 48 Bridges in Delta Districts, i.e. Thanjavur, Nagapattinam & Thiruvarur and 7 bridges in other regions and strengthening and widening 139 sugarcane roads for a length of 417 Km.

Of these, 37 Bridge works have been completed and 13 bridge works are in progress except those which are deleted. These works will be completed during the current year. Further, 127 road works for a length of 368.12 Km have been completed so far. 10 road works for the length of 46.26 Km are in progress except the deleted works. These works also will be completed during the current year. For these works, Rs. 9.12 crores has been allotted in the current year.

Further in 2007-08, proposal has been sent to get NABARD loan for construction of 4 bridges at a total cost of Rs.121.50 crores. These works will be taken up for implementation after receipt of approval from NABARD.

13 STRENGTHENING OF PANCHAYAT AND PANCHAYAT UNION ROADS UNDER STATE FUND

During 2005-06, under the scheme for improving earthen and metalled Panchayat and Panchayat Union roads, 1456 Km length of road works were taken up at a cost of Rs.100 Crores, of which 1367 km length of roads have been completed, incurring an expenditure of Rs.88.74 Crores. The balance 89 km of road works and one bridge work, are in progress and would be completed during the current year.

A provision of Rs.7 crores has been made for the spill over in this scheme in the current year.

14 TSUNAMI EMERGENCY ASSISTANCE PROJECT WITH ASIAN DEVELOPMENT BANK ASSISTANCE

Under this scheme, the Government sanctioned construction of 5 High Level Bridges in the Tsunami affected coastal Districts of Thiruvallur, Cuddalore and Nagapattinam at a cost of Rs.42.70 crores with loan assistance from Asian Development Bank. Preparation of Detailed Project Report has been completed through consultants. After obtaining approval from the Asian Development Bank and based on the design and estimates received from them, tenders have been called for all the works and tenders are under process. These works will be taken up for execution in the current year after obtaining necessary environmental clearance.

Further, a new road project in Cuddalore District namely "Improvements to the road from Alapakkam to Annankoil (via) Thiruchopuram, Periakuppam, Pudukuppam, Chinoor and Parangipettai road for a length of 21.4 Km" along the East Coast, has been sanctioned by the Government at a cost of Rs.12 crores.

A provision of Rs.41 crores has been made in the current year for this scheme.

15. DEVELOPMENT OF ROADS THROUGH PUBLIC PRIVATE PARTICIPATION

The road sector has been inadequately funded in the various Five Year Plans in the past. This has resulted in serious difficulties in maintaining even the existing assets, let alone up-gradation, periodical maintenance and strengthening etc. The developmental works such as construction of bypasses have to be taken up simultaneously so as to revive the sector. Hence it has become necessary to seek private sector participation for the development of certain important roads.

In the first instance, construction of bypass at Coimbatore and construction of high level bridge at Karanodai near Chennai were completed with private sector participation under BOT. Later, the Improvement and maintenance of East Coast Road from Chennai to Pondichery (now Puducherry) and also improvements and maintenance of IT Expressway have been entrusted under BOT. It has been proposed to take up a few road and bridge works under this scheme, this year as well.

16. CONSTRUCTION OF RAILWAY OVER/ UNDER BRIDGES

Construction of Road Over/under bridges in lieu of existing level crossing on Government roads is undertaken where Train Vehicle Units (TVU) exceed one lakh per day. These works are recommended for inclusion in the Railway Works Programme on priority basis. The State Government and Ministry of Railways, Government of India share the cost of construction of Road Over/Under Bridges including approach roads. During the six years from

1999 to 2005, 47 ROB/RUB works were sanctioned, of which, 9 ROB/RUB works only were completed up to March 2006. During the year 2006-07, 4 ROB/RUBs have been completed.

Further, during 2006-07 Government accorded administrative sanction for construction of 25 ROB/RUBs. Preparation of the Detailed Project Reports for these works is in progress and on receipt of these Reports, tenders will be called for and works would commence. On the request of State Government, Railways have included 39 ROB/RUBs in the Railways Works Programme during 2007-08. These works will be taken up on priority basis.

For these works, Rs.171.10 crores has been provided in the current year.

17 INNER RING ROAD / RADIAL ROADS

17.1. Inner Ring Road in Chennai City

To ease to the traffic congestion in the southern part of Chennai City, Government sanctioned southern sector of Inner Ring Road for a length of 9.4 Km, of which 4.4 Km length of road works have been completed. Remaining length of 5 Km of roads could not be taken up due to delay in land acquisition. Land acquisition has since been completed and road works are in progress. Estimate is under preparation for one bridge work. Action will be taken to start construction works during this year.

For these works, Rs.12.62 crores has been provided in the current year.

17.2. Madurai Radial Roads

To improve the roads which connect the villages around Madurai, the Government sanctioned improvement of 12 radial road works for a length of 123.20 Km, one High level bridge and one Railway over bridge in phase-I with HUDCO assistance. All the works have been completed except ROB at Ellis Nagar. Action has been taken to complete the ROB in the current year.

As per announcement made by Government during last year, the Government have sanctioned improvement of 14 roads for a length of 123.20 Km at a cost of Rs.70.60 crores under Phase -II. These works are in tender stage and work order will be issued shortly and works will commence soon.

For this scheme, Rs 41.83 crores has been provided in the current year.

18 HUDCO LOAN ASSISTANCE SCHEME

The Government sanctioned Rs. 60 crores for construction of 61 bridges with HUDCO loan assistance scheme during the year 2003-2004. Of these, 48 works have been completed so far and 8 works are in progress, except those deleted. These works will be completed during the current year.

For these works, Rs.2.80 crores has been provided in the current year.

19 SUGARCANE ROAD DEVELOPMENT SCHEME

Utilising the Cess fund paid by sugar mills, roads are formed and maintained from sugar cane areas to sugar mills. During the year 2004-05, sanction was accorded to form 27 roads for a length of 63.32 Km and to construct 4 bridges at a cost of Rs. 10.98 crores. Of these, 24 road works for a length of 53.65 Km and one bridge work have been completed. The balance

one road work and 3 bridge works will be completed during this financial year except the deleted works.

Further, during 2006-07, sanction has been accorded to form 78 roads for a length of 148.85 Km at a cost of Rs. 24.78 crores. Of these, 70 works are under execution and one expected to be completed during this year.

Apart from the above, special repairs/periodical repair works were carried out in 198 roads for a length of 270 Km under maintenance grant during the last year.

20. NATIONAL HIGHWAYS

National Highways are roads of major importance connecting State Capitals, major Ports, large industrial and tourist centres etc. The total length of National Highways in Tamil Nadu is 4483 km of which, 3239 km length of roads have been handed over to the National Highway Authority of India for widening and improvement. The balance stretches of 1244km National Highways are improved, maintained and renewed by the State Government making use of funds allotted by Government of India.

The Government of Tamil Nadu renders all assistance for acquiring the lands required for widening the NHs. The area of land acquired from 1.4.2002 to 1.4.2006 is only 549.12.20 Hectares. But due to the effective steps taken by the present Government, an area of 897.65.48 Hectares has been acquired during the past one year. Against the total length of 1947 Km where the work is in progress, land acquisition has been completed for a length of 1147 Km. Land acquisition for the balance stretches will be completed soon. The State Government also extend necessary support for shifting of utilities viz, electric poles, cables, water pipe line etc.

Further, out of the 14 packages executed by NHAI, State support Agreement between State Government, NHAI and the Contractor has been signed for 12 packages. This consists of 6 packages in NH7, 3 packages in NH45 and 1 package each in NH 45B, 47 and 67 respectively. Steps are being taken for signing the remaining two packages. In view of the above systematic effort taken by this Government, the works executed by NHAI are carried out swiftly.

20.1 National Highways Development Project (NHDP)

Under the National Highways Development Programmes namely Golden Quadrilateral Programme, North – South Corridor Programme, Port Connectivity, Other Projects and NHDP Phase III Programme, the works of four laning have been taken up by NHAI as detailed below:

(a) Phase-I: Golden Quadrilateral Programme

Under this scheme, a total length of 342 Km roads in NH 4, 5, 7 and 46 are being upgraded to four lane at a cost of Rs.1193 crores and works in 338 km have been completed. The works in the section of Velappan Chavadi –Maduravayal junction from Km 14/0-18/0 in NH4 are in progress.

(b) PHASE-II: North-South Corridor Programme

Under this scheme, works of widening to four lane to the length of 756 km, NH 7 and 47 (Salem - Cochin section) at a cost of Rs. 4041 crores have been taken up and 34 Km length of road works have been completed. Works in 722 Km length of road are in progress.

(c) Port Connectivity Scheme

Under this scheme, 47 Km length of road stretches in NH 7A (Palayamkottai – Thoothukudi road), are being four laned at a cost of Rs.231 crores. It is expected that these road works would be completed before March 2008.

Ennore - Manali Road Improvement Project under Port connectivity Scheme has also been undertaken by NHA. In order to implement this scheme, new body in the name of Chennai - Ennore Port Authority been formed. The State Government have handed over the Northern Inner Ring Road, Manali Oil refinery road and Thiruvottiyur - Ponneri - Panchetti Road for this scheme. The Project cost is Rs. 309 Crores.

This Project consists of the following works.

- ❖ Sea protection works on Ennore Expressway
- ❖ Widening the existing Ennore Expressway (7.5 km) to 4 lane with service roads on both sides
- ❖ Upgradation and widening of Thiruvottiyur - Ponneri - Panchetti Road (9 km)
- ❖ Strengthening of Manali Oil refinery road (5.4km) and Inner Ring road (8.10 Km)

The sea protection works have been completed. Construction of houses for 1824 affected families has been taken up through Tamilnadu Slum Clearance Board. These works are expected to be completed during December 2007. In Thiruvottiyur - Ponneri - Panchetti Road works are in progress. Further, Rs.8.92 crores has been allotted as Government share for land acquisition to widen the above road. Tenders have been called for other works.

(e) Other Projects

In NH45, 93 Km length of road between Tambaram and Tindivanam, was widened to four-lane during 2004-05. In continuation to this, four laning of the stretch between Tindivanam and Trichy for a length of 204 Km at an estimated cost of Rs.1260 crores is in progress.

Further, in NH 45B, Trichy - Madurai Section four laning for a length of 125 Km at a cost of Rs.420 crores is in progress.

20.2 National Highways Development Projects – Phase III

Under this scheme, four laning of 1476 Km length of National Highways is proposed to be taken up by the National Highways Authority of India under Build, Operate and Transfer (BOT) basis. The stages of these works are detailed below:-

a) Works under progress

- ❖ NH 45B - Madurai – Aruppukkottai – Tuticorin - 128 km.

b) Works entrusted

- ❖ NH 67 - Thanjavur – Trichy - 56 km

c) Works in tender stage

- ❖ NH 45 - Dindigul-Trichy - (80 km)
- ❖ NH 67 - Trichy – Karur - (81 km)

- ❖ NH 68 - Salem –Athur - Ulundurpet - (134 km)
- ❖ NH 66 - Tamil Nadu - Pondicherry Border –Tindivanam - (36 km)

d) Detailed Project Report preparation stage

- ❖ NH 45 Extn.- Dindigul – Periakulam – Theni - (73 km)
- ❖ NH 220 - Theni – Kumuli - (57 km)
- ❖ NH4- Madurai – Rameswaram - Dhanushkodi Road - (186 km)
- ❖ NH67- Nagapattinam – Thanjavur - (80 km)
- ❖ NH67Extn-Coimbatore-Mettupalayam-(45 km)
- ❖ NH66-Krishnagiri – Thiruvannamalai – Tindivanam - (170 km)
- ❖ NH47- Kerala/Tamil Nadu border – Kanyakumari - (56 km)
- ❖ NH 205- Tamil Nadu /Andhra Pradesh border – Thiruthani – Chennai - (94 km)
- ❖ NH210- Trichy – Karaikudi - Ramanathapuram - (200 km)

Apart from this, Coimbatore - Ooty - Gudalur (NH 67 Extn) road has been handed over to NHAI and maintenance works under taken. More over the Government of India has been requested to include the 12 Km stretch of NH 67 lying within the Coimbatore Municipal Limits in the scheme carried out by NHAI.

20.3. Chennai Bypass

Chennai Bypass from Tambaram to Maduravoyal for 19 km was constructed under Phase-I, during 2002 with two lane carriageway. Now, under phase-II widening to four lane including service roads and formation of bypass from Maduravoyal (NH4) to Puzhal (NH.5) for 13 Km has been taken up by National Highways Authority of India at a total cost of Rs.405 crores.

20.4. Grade Separators and Flyovers

The National Highway Authority of India has taken up construction of grade separators and road over bridges to ease congestions at four locations in Chennai City i.e. Kathipara junction, Koyambedu junction, Padi junction and in front of the Airport along with widening to four lane with service roads for 4 Km length of road between Koyambedu and Maduravoyal at a total cost of Rs.196 crores.

Construction of grade separator at Kathipara junction, Padi junction and in front of the Airport are in progress. Preliminary works for the construction of grade separator at Koyambedu are in progress.

20.5. Maintenance of Newly Declared National Highways

The newly declared National Highways - NH226 (Thanjavur - Manamadurai road) and NH227 (Trichy - Chidambaram road) have been entrusted to National Highway Authority of India for maintenance and improvement.

20.6. Other National Highways - Plan and Maintenance works

The total length of National Highways in Tamil Nadu is 4483 Km. Of this, 1244 km length of roads are maintained by the National Highways wing of State Government, with the funds

provided by Government of India. During 2006-07, Government of India sanctioned estimates for 48 works costing Rs.98.58 crores. These works are in various stages of execution.

The details of proposals for bypasses are as below:

- ❖ The alignment for the bypasses to Usilampatti, Andipatti, Bodi towns on NH 49 Extn have been approved by Government of India and estimates for land acquisition are under preparation.
- ❖ Estimates for feasibility studies and detailed engineering for the following bypasses have been sent to Government of India for approval:
 - Sethur By Pass (NH 208)
 - Chokkampatti By pass (NH 208)
 - Madurai Bypass
 - Pollachi By pass (NH 209)
- ❖ Estimate for land acquisition for the Bypass to Udumalaipettai on NH 209 has been sent to Government of India for approval
- ❖ The proposal for land acquisition for Pondicherry bypass has been sent to the Commissioner of Land Administration, Chennai for approval. On approval, the Notification under Section 15(1) of TamilNadu Highways Act 2001 will be published
- ❖ Estimate for land acquisition for high level bridge across Counda River at km 227/10 of NH208 has been sanctioned for Rs.5.38 Lakhs and estimate for construction for Rs.338 Lakhs has been sent to Government of India for approval
- ❖ Feasibility studies and detailed engineering for construction of ROB at km 151/4 of NH 209 (Echanari) are under progress
- ❖ Out of 15 Nos of distressed minor bridges proposed for reconstruction at an estimated cost of Rs.1422 lakhs, 11 estimates for Rs.779 lakhs have been sanctioned by Government of India and approval for remaining 4 estimates are awaited.

Further, it is estimated that Rs.90 crores will be allotted for Plan schemes for the current year by the Central Government.

21. REVAMPED CENTRAL ROAD FUND SCHEME (CRF)

The Government of India, set up a Central Road Fund in the year 2000 with accruals from the Special Cess levied on Petrol and Diesel. Administrative sanction has been obtained from Government of India for 552 works during the years from 2001 to 2005 for Rs.448.31 crores under this fund. Of which, 543 works have been completed. The balance works are in progress.

Further, 19 new works were sanctioned by Government of India during 2005-06 for Rs.36.36 crores. These works are in initial stages of implementation. Further, Government have approved 67 works for the year 2006-07 costing Rs.143.80 crores. These works will be taken up during current year.

An allotment of Rs.125 crores has been made in the current year.

22. OTHER SCHEMES

22.1. Western Ghat Development Programme

Under this scheme, works are taken up in the 8 districts viz., Erode, Coimbatore, Dindigal, Madurai, Theni, Virudhunagar, Tirunelveli and Kanyakumari districts. During 2006-07, the Government have sanctioned 16 works costing Rs.102.80 lakhs, in the above 8 districts, which are in progress. A provision of Rs.107 lakhs has been allotted in the current year.

22.2 Economic and Interstate Connectivity Scheme

Under this scheme, proposal for "Construction of new four lane bridge in lieu of the existing bridge in Old Palar road km 0/0-1/4" at a cost of Rs. 16.94 crores was sent to Government of India for approval. Further, during 2006-07, another proposal for improvement of 69.80 km length of roads at a cost of Rs.23.38 crores has also been sent to Government of India for approval.

23. TAMIL NADU URBAN DEVELOPMENT PROJECT-III (TNUDP-III)

Under TNUDP III, the works of construction of 19 road works to a length of 148.87 km costing Rs.330 crores, 9 ROBs/RUBs costing Rs.154.19 crores, 3 pedestrian subways costing Rs.4.60 crores and 3 grade separators costing Rs.200 crores have been taken up with World Bank loan assistance at a total cost of Rs.688.79 crores. Out of 19 road works, Detailed Project Reports for 2 works have been cleared by World Bank, for another 2 works World Bank clearance are awaited and for the remaining 11 works technical approval have to be obtained. Detailed Project Report for 4 works are under preparation.

According to the norms of World Bank Project, the works could be started only on completion of the resettlement and rehabilitation process.

24. TAMIL NADU ROAD SECTOR PROJECT

With the World Bank loan assistance, the Tamil Nadu Road Sector Project, is being implemented at a total project cost of Rs. 2160 crores, of which World Bank has provided loan to a tune of Rs.1670 crores and the balance Rs. 490 crores is provided by the Tamil Nadu Government. This project is being implemented from 2003–04. It is proposed to be completed by March 2009.

The Project comprises of the following three major components.

- ❖ Strengthening and Upgradation of 742 km of core network of Roads linking 11 Districts.
- ❖ Enhanced Periodical maintenance of 2000 km of State Highways & Major district roads and implementation of Road safety works.
- ❖ Institutional Strengthening of Highways Department and implementation of action plan.

24.1 Strengthening and Upgradation Components

742 km of roads are being upgraded to international standards. The total length of roads have been divided into 5 packages of which 4 packages have been entrusted to contractors by international competitive bidding. Works are under progress in these packages.

The following are the Road works taken up under these packages

Package1: Arcot – Tiruvarur Road including 9 Bypass (Arani, Polur, Tiruvannamalai, Tirukovilur, Vridhachalam, Ariyalur, Tiruvarur, Chidabamram and Sirkali) and Polur – Chengam, Jayankondam – Ariyalur Road – 393 Km at an estimate cost of Rs. 611.70 crores.

Package2: Nagapattinam to Kattumavadi including 3 Bypasses (Muthupet, Tiruthuraipoondi, Nagapattinam Road) – 116.60 Km at an estimate cost of Rs. 198.77 crores.

Package 3: Kattumavadi to Ramnathapuram Road 99.80 Km - at an estimate cost of Rs. 143.40 crores.

Package 4: Ramanathapuram to Tuticorin Road 117.90 Km – at an estimate cost of Rs. 119.00 crores.

Package5: Kumbakonam and Ramanathapuram Bypasses 15 Km length – at an estimate cost of Rs. 51.45 crores. Preparation of Detailed Project Report by the Consultant is in progress. On receipt of project report, the tender will be called for implementation of works.

Project Implementation

In the upgradation works, rehabilitation and resettlement of the affected persons are being implemented as per the requirement of World Bank, utilizing the services of Non-Government Organisations. Environmental management plan and action plan are also being implemented. Land acquisition is being carried out purely on private negotiation basis. The majority of landowners are coming forward to part their land for this project. In other cases, actions are being taken to acquire lands under Tamil Nadu Highways Act 2001.

Against the total target of 391.25 Hec. of land 337.96 Hec. of land has been acquired upto March 2007.

In this project 30.6% of works have been done and a sum of Rs. 661 crores has been spent till the end of last year.

Bridges to be constructed : 84 minor Bridges and 44 major Bridges are to be constructed. 9 Railway over bridges (in Polur, Vridhachalam, Ariyalur, Sirkali, Nagapattinam, Tiruthuraipoondi, Muthupet, each one bridge and 2 bridges in Tiruvannamalai) are to be constructed.

24.2 Special Road Maintenance works

The Enhanced Periodical Maintenance in about 2000 km is being taken up in a 4 year cycle. For the year 2004-05, the State Highways and Major District Roads of the core road network to a length of 634 km in 15 maintenance packages have been taken up at a cost of Rs. 242.55 crores. Works in 14 packages have been completed. The remaining one package has been included in the second year for which tender has been called for.

For the second year program, a length of 274km has been identified for enhanced maintenance at a cost of Rs. 109.47 crores in 12 packages. Out of these 12 packages tender has been finalized for 8 packages and works are in progress. For the remaining 4 packages action is being taken to invite rebid.

For the Third year maintenance project selection of works are under progress.

24.3 Black spots - Road Safety Action Plan

300 Black spots have been identified in Tamil Nadu, and works have been proposed to provide counter measures for 50 Black spots. For 4 Black spots works have been entrusted. For another 18 Black spots works will be started by calling of tenders. For the remaining spots, works will be taken up on completion of Rehabilitation and Resettlement measures. Decision is under process to execute the works for some of the spots with State Government Funds also.

24.4 Road Safety Policy

In order to improve the road safety, the following measures are to be taken through Tamil Nadu Road Sector Project.

- ❖ Improve and update the accident data collection and analysis system on Scientific basis and enhance mechanism for sharing data by Computerized database Management System.
- ❖ Introduce a system of road safety measure; identifying accident prone areas and taking remedial action, implementing design and structural techniques.
- ❖ To create awareness about Road Safety, in coordination with Transport and Traffic Police Departments. Awareness program about Road Safety to be arranged by Tamil Nadu Road Sector Project in the upgradation packages done under this scheme.
- ❖ To train Highways Engineers in the Road Safety programmes in order to execute the Road Safety measures effectively.
- ❖ Preparation of Road Safety Policy and implementation after giving wide publicity.

24.5 Information Technology Development, Procurement and Implementation

As part of the Institutional Strengthening Programme of Highways Department, Government intends to procure necessary Computer Hardware and Software required for all the wings of Highways Department by establishing a strong IT unit. It is also planned to develop and implement a Geographical Information System (GIS), which will provide a digital database of Tamil Nadu State road network.

24.6. Road Management System

Consultants have been engaged to provide technical assistance to establish a Road Management System (RMS) for the core road network (SH & MDR) of Tamil Nadu. The Road Management System will have detailed road, bridge and traffic inventory data of the core road network as its main repository.

This system will assist the Department in prioritizing road upgradation and maintenance works and also preparing the road condition reports. The system will be extensively used in the planning process.

24.7. Road User Satisfaction Survey

A Road User Satisfaction Survey has been conducted throughout the State among the road users in respect of road conditions and road amenities including the performance of the Department. The finding of the survey would be used for formulating strategic and operational decisions.

The Stake holders advisory Committee in State and District level has been formed. The Stake holders workshop was conducted in Chennai on 26.02.2007 and the opinion of the Stake holders were obtained and discussed. It was decided to take into account of the opinion of the road users while executing the works.

25. HIGHWAYS RESEARCH STATION

The Highways Research Station established in 1957 is completing 50 years of useful work and contributing its technical support to the Highways Department by furnishing by Research and Experiments reports. The important works taken up are follows:

- Applied research
- Training
- Quality control

Four laboratories are functioning for the above works.

a) Tests carried out by Soils and Foundation Engineering laboratory

- California bearing ratio for finding the strength of soil
- Grain size analysis and Atterberg's limits of soil
- Standard penetration tests for embankment filling
- Pile load test to find the capacity of pile

b) Tests carried out by Concrete and Structure laboratory

- Concrete mix design for various members of the bridge structure
- Cement test coarse aggregate test for their suitability
- Non-destructive test on concrete members

c) Tests carried out by Bitumen and Aggregate laboratory

- Semi dense bituminous macadam (job mix formula)
- Bituminous concrete (job mix formula)
- Penetration of bitumen, softening point, elastic recovery test.

d) Tests carried out by Traffic and Transportation laboratory

- Bump integrator test for surface unevenness
- Traffic volume survey and Axle load survey to design pavement thickness

During 2006-07, four research studies were sanctioned by Government for Rs. 46 Lakhs under Part-II scheme. The four studies are as follows:

- Study on accident prevention on NH 45 from Km 0/0-56/0
- Study on the accident prevention on ECR road
- Bitumen study on the performance of cold mix for pot holes filling
- Study on pavement condition with respect to time on penetration grade. Bitumen and CRMB

These research works are in progress. It would take 2 years to complete the research. The final report will be submitted during 2008-09.

Highways Research Station collects samples and tests are being carried out on various works implemented by Highways Department. During last year, 6012 tests pertaining to road works and 41 tests pertaining to bridges have been taken up.

It is estimated that 7000 tests will be carried out during 2007-08.

25.1. Quality Management Programme

The Highways Department is executing road works costing crores of rupees and the Highways Research Station is playing an important and active role in managing and assuring quality of work to serve the purpose of extending the life of the pavement and bridge structures.

At present 15 Sub Divisions including Regional Labs at Thanjavur, Madurai, Tirunelveli and Coimbatore are engaged in monitoring the quality aspects of road and bridge works through out Tamil Nadu under Highways Research Station. Random and routine quality check inspections are being done for ensuring quality works.

25.2. Data Bank

With a view to have readily available information about roads and bridges, a DATA BANK has been created for storing all technical details and vital statistics. The details for 614 major bridges and 3408 minor bridges and traffic census taken up during 1999 and 2002, at 6900 locations of State highways, Major district roads and Other district roads have already been collected and stored in data bank. The bridges are being assigned a unique number so as to arrive at an effective programme for the efficient maintenance. The traffic census taken by the regular wing of the Highways Department during the year 2005 is being stored in data bank.

There are 159 major bridges and 774 minor bridges in State Highways roads. Out of these, 12 major bridges and 69 minor bridges are identified by HRS from the data available and recommended for reconstruction. Further the details for the bridges for all Major District Roads are being collected.

25.3. Training Programme

Highways Research Station plays a very vital role in updating the knowledge of field Engineers in planning, designing, construction and maintenance of roads and bridges.

At present quality control training is being offered 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 for 5 days every month.

25.4 Procurement of New Equipments

Highways Research Station has been equipped to take up researches in Road and Bridge works. Bitumen, Concrete Mix design and Pavement composition for roads are being finalized by Highways Research Station for the important works taken up by Department. Sophisticated equipments needed for tests and quality assessment are available in HRS. To improve this, an allocation of Rs.20 Lakhs has been made under Part II Scheme for 2007-08 for procuring sophisticated equipment.

26. DESIGNS AND INVESTIGATION

26.1. Functions

Designs and Investigation Wing is mainly involved in the preparation of Designs, Structural Drawings and Estimates for Bridge works executed under various Wings of Highways Department. The Investigation Section undertakes the collection of field particulars and relevant technical data for Bridge works and submits the same to Designs section for preparation of suitable Design and Estimate. Based on the field particulars the Design section undertakes the following tasks.

- Preparation of Designs, Structural Drawings and Estimates for Bridge works exceeding Rs.2 crores in value under various schemes.
- Scrutiny of preliminary alternative designs received along with tenders and alternative designs.

- Modification of Designs, if any, due to change in foundation based on soil strata encountered or any change in structural components.
- Clearance of over dimensional vehicles to ply on roads.
- Clearance for specific proposals of Local Bodies and other Departments in respect of Design.
- Attending to specific references from Government on Design aspects.

26.2. Use of Software for Design

The components of bridge structures such as pile foundation, column piers, beams and superstructure are being designed adopting modern computer software packages.

Bridge works for which estimates/designs prepared during the year 2006-2007

Sl. No.	Structure	Cost of Estimate		No. of Estimates / Proposals / Designs prepared
		Rs.100 Lakhs to Rs.500 Lakhs	More than Rs. 500 Lakhs	
1.	Rail Over Bridges (ROB)	--	20	20
2.	River Bridges	23	9	32
Total		23	29	52

Thus, Estimates / proposals and Designs have been prepared during last year for 52 Bridge works costing about Rs. 335 crores.

As per the present allocation of works among the Engineers of Highways Department, in order to expedite the execution of works, the estimates for Bridges and Roads costing less than Rs.2 crores will be prepared at Circle level. The preparation of designs, structural drawings and estimates for bridge works costing Rs.2 crores and above will be taken up by the Investigation and Design Wing.

Bridge works proposed to be taken up for Investigation and preparation of designs and estimates during the current year

Sl. No.	Structure	Cost of Estimate		No .of Estimates/ Proposals/ Designs to be prepared
		Rs.200 Lakhs to Rs.500 Lakhs	More than Rs. 500 Lakhs	
1.	Rail Over / Under Bridges (ROB) / (RUB)	--	16	16
2.	River Bridges	13	5	18
3.	New Schemes	--	--	26
Total		13	21	60

The rough cost of the estimates to be prepared during current year will be about Rs. 400 crores.

27. TAMIL NADU ROAD INFRASTRUCTURE DEVELOPMENT CORPORATION

Tamil Nadu Road Infrastructure Development Corporation has been formed by Tamil Nadu Government. During December 2004 to formulate and implement the road infrastructure development works. Road infrastructure facilities for Oragadam industrial park, Bhart Nirman Scheme, PMGSY are taken up through this corporation.

27.1. Pratan Mantri Gram Sadak Yojna (PMGSY)

This Government of India funded Scheme is implemented from the year 2001-2002 for providing B.T roads before 2007 to all the habitations in the population group of 500-1000.

From 2001-2006, Rs.731.92 Crores have been sanctioned under this scheme, to improve and provide new connectivity to Panchayat / Panchayat Union roads in Five Phases by Government of India. Works in the first III Phases were executed by Rural Development Department and the IV Phase by Highways Department. the works in Phase-V have been entrusted again to the Rural Development Department.

Government of India through Tamil Nadu Road Development Corporation sanctioned roads works for a length of 820 Km. at a cost of Rs. 117.27 crores.

Upto 2006-07, 474 km length of roads have been completed. The balance works will be completed before June,2007.

27.2. Bharat Nirman

This programme was announced by Government of India during 2005 to build a strong Rural India with basic infrastructures.

Under Phase I of this scheme, the Ministry of Rural Development, Government of India has fixed a target of 11,115 Km for Tamil Nadu for modernisation of through routes of Rural Roads (Other District Roads / Village Roads) during a period of 4 years from 2005-06 to 2008-09. Out of this total length, 60% would be upgraded with Government of India funds and 40% would be renewed with state funds. Accordingly, improvement of 6669 km length of roads and renewal of 4446 Km of roads have been proposed to be taken up with state funds. So far, 9517 km length of Other District Roads have been improved under State Funds.

Out of the target fixed for improvement of 6669 km length of roads taken up under Central assistance, in the first phase, Detailed Project Reports are being prepared based on the list of works comprising 3321 km length of 1148 works. On completion of this, works will be taken up by obtaining approval of Government of India.

The balance 2000 km length of Panchayat and Panchayat union roads, 1000 km length of Other District Roads totalling 3000 km length of roads are being proposed to be taken up in the second phase.

27.3. Industrial Corridor of Excellence

While moving the demand for Industries Department during 2006-07, Hon'ble Chief Minister announced the creation of Industrial Corridors of Excellence. Accordingly, the Government have sanctioned a new Corridor of Excellence in which Industrial Parks, Integrated Townships and Special Economic Zones will be located with better connectivity to Airports and Ports in Oragadam area at a total cost of Rs. 300 Crores.

28. TAMIL NADU MARITIME BOARD

Tamil Nadu has a coastline of about 1,000 Kms. Along this coastline, there are three major ports viz., Chennai, Ennore and Thoothukudi and 15 minor ports. The major ports are setup under the Major Port Trust Act 1963 and come under the control of Government of India whereas the minor ports are covered under the Indian Ports Act 1908 and come under the control of the State Government.

The Tamil Nadu Port Department which was administering, controlling, regulating and managing 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. The Minister for Highways and Ports, Government of Tamil Nadu is the ex-officio Chairman of the Board.

28.1. Minor Ports in Tamil Nadu

The following are the minor ports in Tamilnadu:

Government Ports	Captive Ports
1. Cuddalore	1. Kattupalli
2. Nagapattinam	2. Ennore Minor Port
3. Pamban	3. Thiruchopuram
4. Rameswaram	4. PY 03 Oil Field
5. Valinokkam	5. Thirukkadaiyur
6. Kanniyakumari	6. Punnakkayal
7. Colachel	7. Manappad
	8. Koodakulam

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

28.2. Activities of Minor Ports

In the Government ports, small ships call at Nagapattinam port for the export of Cement and Molasses and import of Edible Oil and Copra cake. Small ships are occasionally piloted through Pamban channel. Kanniyakumari port is used for Passenger Ferry Service. There is no activity in other ports.

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 eight captive ports, four ports, viz., Ennore Minor Port (Thiruvallur), PY-3 Oil Field (Cuddalore), Thirukkadaiyur (Nagapattinam) and Koodankulam (Thirunelveli) are presently operational. The remaining four captive ports are not operational.

28.3. Commodities handled in Minor Ports

A) Government Ports

Sl. No.	Port	Export	Import
1.	Nagapattinam	Cement and Molasses	Edible Oil, Copra cake and Crude oil

B) Captive Ports

Sl. No.	Port	Export	Import
1.	Ennore Minor Port	-	Liquid Ammonia
2	PY 03 Oil field	Crude oil	-
3	Thirukkadaiyur	-	Naphtha
4	Koodankulam	-	Machineries

As a result of damage caused by Tsunami, the cargo handling during 2005-06 got reduced to 7.10 lakh-tonnes. After rehabilitation works were undertaken, the quantum of cargo handle has increased to 8.00 lakh-tonnes, due to which, the Board is running on profit. It is expected to handle about 10.00 lakh-tonnes during the current year.

28.4. 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.,

The Government of Tamil Nadu has formulated and implementing a port policy to provide for investment opportunities for the development of Minor Ports in Tamil Nadu. Amendments to this policy to meet the current requirements are under consideration.

The main highlights of the Port Policy

The vision 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.

Objectives

- To facilitate establishment of Port based Thermal Power Plants by providing exclusive port facilities to Import Coal, Naphtha, Oil, 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, ship breaking and construction of floating crafts.

Policy guidelines

- 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 trust of the policy bundle will be encourage effective private participation and to that extent the approach in finalizing the proposals could be flexible on a case to case basis.

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.

28.5. Port Development Works.

A) Government Ports.

(i) Colachel Port

The Port has more than 15 meters of depth within one Km distance from the shore. The Port is also located very close to the International shipping route. M/s. RITES Ltd., in their report on "Port Vision 2020" had identified Colachel as a suitable port for developing into Container transshipment Hub Port taking into account the above factors. The State Government have requested the Government of India to assist in preparing the detailed Feasibility/Project report. M/s. Sethusamudhram Corporation Limited will appoint Consultants for preparation of Detailed Feasibility Report/Detailed Project Report to develop this port. Since

this project requires huge investment, the State Government have decided to request Government of India to develop it as a major International Container Transshipment Hub Port.

(ii) Cuddalore Port

M/s. Cuddalore Power Company have proposed to set up a 1320 MW capacity Thermal Power Plant at a cost of Rs.6000 Crores at Thiyyagavalli village in Cuddalore district. The power plant requires approximately 3.50 million metric tonnes of imported coal per annum as fuel. For the import of coal, a jetty at a cost of Rs.325 Crores is proposed to be constructed for which Tamilnadu Maritime Board has accorded in principle approval on 19.01.2007.

The Government is also considering development of a Common user Green Field Port at Cuddalore for the use of all the industries in the region, through Public Private Partnership. For this purpose, Tamilnadu Maritime Board had appointed M/s. UTI Bank/RITES Ltd., as Technical Assistance Provider. M/s. UTI Bank / RITES Ltd. have prepared the Initial Screening Report, Draft Bid Document, Draft Concession Agreement and Time Schedule for implementation of the port project.

“Tsunami” which struck Tamilnadu in December 2004, severely damaged the infrastructural facilities at the Port such as breakwaters and also reduced the depth in Uppanar river at Cuddalore. The Government of Tamil Nadu have sanctioned an amount of Rs.14.41 crores under Asian Development Bank assistance for the rehabilitation of Tsunami damaged infrastructures. During 2006-07 works for a value of Rs.5.50 crores have been completed. The balance works are in progress and will be completed during 2007-08.

(iii) Nagapattinam Port

Vessels are regularly calling at this port to import Edible Oil and Copra cake and to export Cement and Molasses. M/s. Chennai Petroleum Corporation Limited has constructed a RCC Jetty to handle Crude Oil for their refinery at Panangudi through which the company is regularly receiving Crude Oil. The company has also proposed to export petroleum products using this jetty.

“Tsunami” also severely damaged the port infrastructural facilities such as cargo sheds, breakwaters, cargo handling area, weigh bridge, illumination facilities and also reduced the depth in Kaduvaiyar river at Nagapattinam. The Government of Tamil Nadu have sanctioned Rs. 50.52 crores under Asian Development Bank assistance for the rehabilitation of the Tsunami damaged infrastructure.

During 2006-07 works for a value of Rs.4.50 Crores were completed and the balance works which are in progress, will be completed during 2007-08.

B. Captive Ports

(i) Ship Building Yard at Kattupalli in Thiruvallur District

Kattupalli is situated north of Ennore major port in Thiruvallur district has been notified as a minor port in 1999. TIDCO proposed to float a Special Purpose Vehicle along with a private entrepreneur for developing a ship building yard at a proposed cost of about Rs. 1000 crores.

(ii) Ship Building Yard in Cuddalore District

Tamilnadu Maritime Board accorded in principle approval to M/s. Goodearth Shipbuilding Private Limited for establishing a captive shipbuilding yard at a cost of Rs.1000 crores in between Pudukuppam and Reddiyarpetai in Cuddalore district for the construction of ships

ranging from 45000 to 75000 DWT. For this purpose, a Memorandum of Understanding (MOU) was signed between the company and Tamilnadu Maritime Board in the presence of the Hon'ble Chief Minister on 15.02.2007.

(iii) Thiruchopuram Port

Thiruchopuram in Cuddalore district was declared as a captive port for the use of M/s. Nagarjuna Oil Corporation Ltd., for import and export of Crude Oil and refined oil products required for their proposed oil refinery at Thiruchopuram. The Government of India have notified this port as customs port. The Ministry of Environment and Forests, Government of India have also accorded environmental clearance for setting up marine terminal facilities in this port.

(iv) Captive Offshore Port in Nagapattinam District

M/s. McNamara International Private Limited have proposed to establish an offshore captive port near Thirukkuvilai at a cost of Rs. 750 crores to import coal for their 2000 MW Merchant Power Plant to be established at a cost of Rs.10000 crores in Nagapattinam District. For this purpose the Board has accorded in-principle approval and a Memorandum of Understanding (MOU) was signed in the presence of the Hon'ble Chief Minister on 21-03-2007.

(v) Manappad Port

Manappad in Thoothukudi district has been declared as a Minor Port for the captive use of M/s. Indian Gas Limited for handling 2.5 Million tonnes of LNG per annum required for their proposed 2000 MW Gas Turbine Power Project to be set up by M/s. Indian Power Projects Ltd., at Vembar. The Government have given 100 acres of lands on lease basis for this scheme.

C. Development of Nagapattinam and Rameswaram Ports

(i) Nagapattinam

Import and export is expected to increase in Nagapattinam port when the Sethusamudhram Ship Canal Project gets completed. To cope up with this increase, it is proposed to develop Nagapattinamas as well. Sethusamudhram Corporation Limited is expected to appoint Consultants shortly for the preparation of Detailed Project Report for the development of this port. After receipt of the report, necessary action will be taken to develop the port.

(ii) Rameswaram

The trade and traffic is also expected to increase in Rameswaram port after completion of Sethusamudhram Ship Canal Project. Further, Sethusamudhram Corporation Limited will require a place for servicing their crafts. As such, it is proposed to develop an integrated port facility comprising of fishing, cargo handling and flotilla facility at Rameswaram. Sethusamudhram Corporation Limited will appoint Consultants shortly for the preparation of Detailed Project Report for development of this port. On receipt of the report, further action will be taken to develop the port with assistance from Sethusamudhram Corporation Ltd.

28.6. Sethusamudram Ship Canal Project

Sethusamudhram Ship Canal Project envisages excavation of a ship canal close to Rameswaram to connect the Palk Bay and Gulf of Mannar. This project is expected to reduce the sea distance between the East Coast and the West Coast of India by more than 400 nautical miles and 36 hours of ship sailing time. The Government of India has set up Sethusamudhram Corporation Limited., for this purpose. The dredging work of the canal is in

progress now. 112.30 cubic metres have been dredged up to March 2007. Sethusamudhram Corporation has required 112 acres of land at Dhanushkodi and Mandapam for which Government of Tamilnadu have given enterupon permission. The request for assignment of approximately 2007 acres of land at Dhanushkodi for reclamation has been considered and entry permission has been issued.

29. POOMPUHAR SHIPPING CORPORATION LIMITED (PSC)

Poompuhar Shipping Corporation Limited (PSC) was established on 11.04.1974 under the Companies Act, 1956 with the objective of transporting from Indian ports the entire allotment of Indian coal required for the Thermal Power Stations of Tamil Nadu Electricity Board (TNEB). The Corporation owns three ships for handling coal. Apart from these ships, based on the requirement of coal, vessels from private shipping companies are also chartered for handling coal.

29.1 Ships in Operation

Poompuhar Shipping Corporation is operating three own specially designed shallow draft geared bulk carriers viz. M.V Tamil Anna, M.V Tamil Periyar and M.V Tamil Kamaraj. With these own ships, the coal is being transported to the Thermal Power plants of TNEB; apart from this, based on the necessity, ships from Shipping companies registered in India and abroad are chartered on long term and short term basis.

29.2. Physical and Financial Performance

Coal required by TNEB is moved from the load Ports at Haldia, Paradip and Vizhagapattinam and discharged at Ennore and Tuticorin Ports through own and chartered ships. In 2006–07, this corporation transported about 131.74 lakhs-M.T. of coal for TNEB. During the current year, it is expected to move about 150 lakhs-M.T. of coal.

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

Year	Quantity moved (in Lakh MT)	Turnover (Rs in Crores)	Net Profit/Net Loss (Rs in Crores)
2002-03	146.12	304.74	(-) 14.66
2003-04	142.11	391.99	(+) 8.57
2004-05	141.40	453.39	(-) 1.28
2005-06	127.58	470.79	(+) 0.39
2006-07	131.74	389.83 (provisional)	(+) 3.52 (provisional)

29.3. Tuticorin and Ennore Ports

Coal handling is undertaken from Tuticorin port since 1983. In this port, two berths have been allotted to TNEB. The coal unloaded by cranes is transported directly to the Tuticorin Thermal Power Station through conveyor belts.

Coal required by TNEB was discharged at Chennai port till 2001. After Ennore port started functioning coal is being discharged at Ennore port through conveyor belts.

29.4. Kanniyakumari Ferry Service

This Corporation is also operating ferry services from the shore at Kanniyakumari to the Ayyan Thiruvalluvar Statue and the Vivekananda Memorial Rock. During December 2004, due to tsunami tidal waves, the jetty got damaged and out of three launches, two launches suffered extensive damages and another launch M.L. Vivekananda was washed away. After repairing the existing two launches M.L. Tamiraparani and M.L. Bhagirathi, the ferry service resumed operation.

As announced in the Policy Note during last year, tenders were invited for replacing the existing two ferries viz. M.L. Tamiraparani and M.L. Bhagirathi which are over 30 years old. For design, construction and supply of two new ferries, work order has been issued at a cost of Rs. 2.10 crores. These two new ferries are expected to be supplied at Kanniyakumari by December 2007. Action has been taken to get 25% as grant on the cost of ferries from the Ministry of Tourism, Government of India.

29.5. Tamil Nadu Maritime Academy-Tuticorin

The Tamil Nadu Maritime Academy was inaugurated on 16.09.1998 at Thoothukudi. The Academy initially conducted Seaman and Engine Rating Training courses. The Academy is presently conducting training for General Purpose Crew instead of Deck and Engine Rating Crew. The Academy has so far conducted 15 training courses and trained 540 students. The Academy is also conducting five STCW-95 courses covering "Personal Survival Techniques", "Elementary First Aid", "Personal Safety and Social Responsibility", "Oil Tanker Familiarization" and "Basic Fire Prevention and Fire Fighting".

Vellakoil M.P. Saminathan
Minister, Highways.