# **HIGHWAYS DEPARTMENT**

## **DEMAND NO:20**

# POLICY NOTE ON ROADS, BRIDGES AND SHIPPING

# 2005-2006

#### I. INTRODUCTION

Development of infrastructure leads to economic growth of a region and improved living conditions of the people. The development of road infrastructure in particular will accelerate the growth in industry, power, road transport and also in social development. Development of a good road network also acts as a catalyst for economic development of the rural areas of the State.

The road network of the State influences considerably the economic development, population distribution, the size and shape of cities and towns, energy consumption, access to social infrastructure and above all the quality of life. The government under the dynamic leadership of the Hon'ble Chief Minister does not consider the roads as mere connecting links but as an essential requirement for the over all development of the State.

Tamil Nadu has a more extensive road network than most Indian States. The total length of roads in the State is 1,78,062 Km, of which 61,289 Km is managed by the Highways Department. The 61,289 Km of road network comprises 3850 Km of National Highways, 7230 Km of State Highways, 7383 Km of Major District Roads, 41,191 Km of Other District Roads and 1635 Km of Sugar-cane roads. In terms of road density per 100 square Km, the State's position is commendable that it increased from 29.70 Km in 1951 to the present level of 127.68 Km, which is about 70% more than the national average of 74.73 km per 100 sq.km.

Road transport is the dominant mode of transport in Tamil Nadu accounting for 80% of freight and passenger trip facilitating trade and economic development. Demand for road transport has been increasing rapidly in Tamil Nadu with vehicle registration growing by about 14 per cent annually during the 1990s. The demand is projected to grow from 8 to 10 per cent in the foreseeable future and even more if the Indian economy picks up the momentum. The registered vehicles have increased from 15,38,734 in 1991 to 67,52,473 as on 01-04-2004. However, road network supply has not kept pace with the growing demand leading to serious network deficiencies such as capacity constraints and pavement deterioration. The deficient pavement leads to excessive maintenance requirement and higher vehicle operating costs.

A large percentage of the State population lives in rural areas and a greater focus is given to provide excellent communication network to rural areas. The Government has been striving to provide an integrated road network with rural roads acting as feeder routes to the main core net work with a view to provide better connectivity and also to reduce travel time and operating costs.

The Government of Tamil Nadu is committed

- To develop an integrated road network in order to maximize the benefits of economic progress to people
- To upgrade road construction, design, planning and execution adopting latest technology.
- To manage Highways assets and resources in a professional manner.
- To leverage market resources for providing high quality road network

In order to fulfill the above commitment, the Government has been exploring avenues to mobilize resources through Public- Private participation. The first public private participation venture was launched for improvement and maintenance of East Coast Road from Chennai to Pondicherry by entrusting the work to Tamil Nadu Road Development Company, a joint venture of Tamil Nadu Industrial Development Corporation Ltd. The second project under this format is the prestigious IT Expressway corridor improvement now being built with world-class standards. The work is programmed to be completed by December 2005. This corridor will be a landmark road project of the State and will be a boon to the IT industry.

Besides the budgetary support, funds have been mobilized from NABARD and HUDCO for improvement of rural roads and construction/reconstruction of bridges. The Tamil Nadu Road Sector Project is being implemented with World Bank Ioan assistance. The Highways Department has been playing a critical role for development of road infrastructure in Chennai Metropolitan Area. This Department is entrusted with 82.63 kms of Chennai Corporation bus route roads for improvement and maintenance in 2002. Under the Special Programme of Chennai Traffic and Transportation Management Plan, several road improvement works were taken up during 2003-2004. Recently, Government have sanctioned Rs.369 crores for essential road improvements in the city and outlying areas. In view of the rapidly increasing traffic in Chennai and surrounding areas, a plan with an outlay

of Rs.540 crores has been prepared and to be sent to World Bank under TNUDP III for improving the traffic and transportation services in the City.

Recently, the Government have ordered the Highways department to take up repairs and improvement of 3038 km of damaged Panchayat and Panchayat Union roads at a cost of Rs.150 crores. As part of the commitment to develop an integrated road network, the Government have issued orders that the works to be taken up under PMGSY be implemented by the Highways Department.

In order to mobilize resources to implement infrastructure projects within a time frame and enhance the serviceability level of the roads by leveraging funds allocated, the Government have issued orders to set up "Tamil Nadu Road Infrastructure Development Corporation."

The Government is not lagging behind in obtaining allocation under Central Road Fund from Government of India. Administrative sanction has been obtained for 445 works during 2001-2004 at a cost of Rs.307.93 crores. A further sanction has been obtained for 107 works at a cost of Rs.140.62 crores during 2004-2005.

The Honourable Chief Minister has recently announced a new and a special scheme of Comprehensive Road Infrastructure Development Programme with an outlay of Rs.1050 crores to improve the State Highways, Major District Roads, Other District Roads and reconstruct and widen bridges along these roads for the year 2005-2006. The newly established Tamil Nadu Road Infrastructure Development Corporation will mobilize Rs.100 crores in the first stage for this programme.

The thrust given by the Hon'ble Chief Minister in infrastructure development is unparalleled and can be evident from the fact that the allotment which stood at Rs.661.88 crores in the year 2001-2002 has increased to Rs.2991.47 crores in 2005-2006. The mandate given by the Hon'ble Chief Minister is being carried out relentlessly by the department and this policy note outlines the programme for the year 2005-2006.

# **ROADS & BRIDGES**

### II. POLICY-OUTLINE

Construction, improvements, renewal and maintenance of road network are being undertaken by the Highways Department. Following are the classification of road network:

- i) National Highways
- ii) State Highways
- iii) Major District Roads
- iv) Other District Roads

This road network includes Bridges, Causeways, Culverts, Road Over Bridges and Road Under Bridges.

According to traffic intensity, connectivity and importance of the roads, the roads are being classified as National Highways, State Highways, Major District Roads and Other District Roads. Whenever the traffic intensity increases, necessary steps are taken to upgrade such categories of roads to the respective higher categories. With this backdrop, each classification is detailed below:

### (i) National Highways

These are main highways running through the length and breadth of the country connecting major ports, State capitals, large industrial and tourist centres etc.

While the traffic on National Highways has been growing due to acceleration of industrialisation in the Country, the Government of India are taking matching action utilising latest technologies and improved management techniques to provide hindrance-free traffic movement by way of widening roads, providing grade separators, construction of bypasses, bridges, railroad crossings etc. The Government of Tamil Nadu are providing support to Government of India towards this objective and assist in pre-construction activities for four laning or six laning or cement concreting of National Highways wherever possible depending upon the site conditions. The endeavour of Government of Tamil Nadu is to accelerate the growth trend of the National Highways network in Tamil Nadu. The length of the National Highways in Tamil Nadu is 3850 km.

### (ii) State Highways

These are arterial routes of a State, linking district headquarters and important cities within the State and connecting them with National Highways or Highways of the neighbouring States.

Of the total length of 7230 km of State Highways, 1802 km is single lane, 1042 km is intermediate lane, 4114 km is double lane and 272 km is multilane.

## (iii) Major District Roads

These are important roads within a district serving areas of production and markets and connecting these with each other or with the main Highways.

Of the total length of 7383 km of Major District Roads, 4595 km is single lane, 898 km is intermediate lane, 1790 km is double lane and 100 km is multilane.

#### (iv) Other District Roads

These are roads serving rural areas of production and providing them with outlet to market centres, Taluk headquarters, Block Development headquarters or other main roads.

Of the total length of 41191 km of Other District Roads, 39248 km is single lane, 1178 km is intermediate lane, 720 km is double lane and 45 km is multilane.

Apart from Other District Roads, 1635 km of Sugarcane Roads with 1600 km single lane and 35 km double lane are also serving the State.

### (v) Bridges, Causeways, Culverts, Road Over Bridges / Road Under Bridges

To cross water-bodies and Railway Level Crossings across the road alignments, Highways Department undertakes construction of Major Bridges, Minor Bridges, Causeways, Culverts, Road Over Bridges and Road Under Bridges depending upon the site conditions.

An assessment made indicates that there are large number of bridges on Government roads, which were constructed decades back, are now in distressed condition and require to be reconstructed. The Government are, therefore, taking action to reconstruct these bridges in a phased manner. On this basis, it has been announced to reconstruct 204 bridges on Government roads in Delta districts. Of which, 94 bridges on Other District Roads have been taken up with loan assistance from NABARD. 36 bridges on State Highways have been taken up under Central Road Fund scheme. 48 bridges on Major District Roads have been taken up with loan assistance from NABARD.

Construction of Road Over/Under Bridges in lieu of the existing level crossings on Government roads is undertaken where train vehicle units exceed one lakh. These works are recommended for inclusion in the Railway Works Programme on priority basis. The State Government and the Railways share the cost of construction of Railway Over/Under Bridges including approaches.

The Government have recommended 38 Road Over/Under Bridge works to Southern Railway for inclusion in future Railway Works Programme. Out of this, 20 works have been recommended by Railways for inclusion in Railway Works Programme 2004-2005 and 15 works for the year 2005-2006. The board has approved only 5 works on priority basis for the year 2004-2005. Out of these 5 works, 3 works are situated in Chennai Metropolitan Area. The Government of Tamil Nadu has approached the World Bank for financing these three works under TNUDP-III. Detailed Project Reports are under preparation. Apart from these 38 ROB/RUB works, 22 level crossings are found feasible for construction of Road Over/ Under Bridges and steps are being taken to include them in future Railway Works Programme.

#### **III. ON GOING SCHEMES**

To achieve the objectives listed in "POLICY OUTLINE", the following schemes are proposed to be undertaken during 2005 – 2006.

#### 1. ROAD WORKS

#### **1.1. National Highways – Original Works and Maintenance**

The length of National Highways in Tamil Nadu is 3850 km. The Government of India recently declared 4 State Highway roads totalling 362 km as National Highways in which the Ministry of Road Transport and Highways have issued entrustment for 3 roads on 20.12.2004. With the funds allocated by Government of India, the National Highways roads are improved, maintained and renewed. The Annual Plan proposals for the year 2004-2005 for Rs.130 crores have been approved by the Ministry against which detailed estimates for Rs.170.96 crores have been sent to the Ministry and estimates for the works costing Rs.108.23 crores have been sanctioned up to February 2005 and the approval is awaited for the balance estimates.

Proposals for the works costing Rs.196.90 crores under Annual Plan and Rs.30 crores under Non-Plan have been sent for the year 2005-2006 for Ministry's approval.

### **1.2.** Special Improvement Project for National Highways

Project proposal for, "Improvement to the National Highways in Tamil Nadu" for Rs.1300 crores has been sent to the Ministry of Shipping, Road Transport and Highways, New Delhi for approval. This project proposal comprises of construction of 33 bypasses, 23 Railway Over Bridges, 9 Major Bridges, 33 Minor Bridges, Widening 48.72 km of single lane to two lane, Widening 57.60 km two lane to four lane, strengthening 1038.50 km of roads, improving the riding quality of 153.50 km of National Highways and improvement to 59 numbers of junctions. The approval is awaited.

### **1.3.** National Highways Development Project (NHDP)

The National Highways Authority of India (NHAI) have proposed to upgrade the National Highways to four-lane/ six-lane under the Golden Quadrilateral, North - South Corridor Scheme, Port Connectivity and Other Projects as detailed below:

# i) Golden Quadrilateral Programme

The Golden Quadrilateral Programme consists of 341 km length of roads in NH-4, 5, 7 and 46. Out of the above, 97.60 km length of road works have been completed and the balance length of road work is under progress. The works are programmed to be completed by March, 2006.

# ii) North-South Corridor Programme

The North-South Corridor Programme consists of 787 km length of roads in NH-7 and 47. Out of the above, 52 km length of road works have been completed and 49.60 km length of road works are under progress. Works are in the pre-construction stages for the remaining length.

# iii) Port Connectivity Scheme (NH-7A)

Under this scheme, a length of 51 km. in NH 7A (Palayamkottai – Tuticorin road) is to be widened to four lane at a cost of Rs.138.00 crores. Works have been commenced and targeted to be completed by August 2006.

Under Non-NHDP, a length of 92.48 km. is to be widened to four lane as detailed below:

NH-47 (Kerala border – Kanyakumari section)	56.00 km
NH-66 (Pondy – Krishnagiri road upto Tindivanam)	36.48 km
– Total	92.48 km

## iv) Other Projects

Four laning and strengthening of NH-45 from km 28/0-120/900 between Tambaram and Tindivanam at a cost of Rs.41.81 crores have been completed. The stretch of NH-45 from Tindivanam to Trichy is yet to be taken up.

## v) Chennai Bypass

Chennai Bypass Phase I from Tambaram to Maduravoyal for 19 km was constructed in 2002 with only two lane facility. Now the project for widening of this road to four lane and construction of four lanned road from Maduravoyal (NH.4) to Puzhal (NH.5) for 13 km as phase II is being taken up by National Highways Authority of India at a cost of Rs.480 crores.

# vi) Grade Separator and flyovers

The National Highways Authority of India has taken up the project of construction of grade separators/ flyovers at Kathipara Junction, Koyambedu Junction, Padi junction and in front of Airport to regulate the traffic. The NHAI has also taken up the widening of the stretch (4 km) between Koyambedu and Maduraivoyal to four laning with service roads on either sides. The estimate cost of the above project is Rs.200.00 crores.

## 1.4. State Highways

Under New Services Scheme for the year 2004-2005, 563.86 km length of State Highways have been taken up for improvement at a cost of Rs.100 crores. Works to the tune of Rs.50 crores will be completed during 2004-2005 and balance works will be completed during 2005-2006.

The Budget Estimate for 2005-2006 is Rs.200.00 crores.

# 1.5. Major District Roads

Under New Services Scheme for the year 2004-2005, 663.56 km length of Major District Roads have been taken up for improvement at a cost of Rs.100 crores. Works to the tune of Rs.50 crores will be completed during 2004-2005 and balance works will be completed during 2005-2006.

The Budget Estimate for 2005-2006 is Rs.200.00 crores.

## **1.6.** Other District Roads

Under New Services Scheme for the year 2004-2005, 4545.00 km length of Other District Roads have been taken up for improvement at a cost of Rs.250 crores. Works to the tune of Rs.150 crores will be completed during 2004-2005 and balance works will be completed during 2005-2006.

The Budget Estimate for 2005-2006 is Rs.250.00 crores.

During 2004-2005 a new project for improvements to 225 roads covering 998.72 km. at a cost of Rs.87.30 crores has been sanctioned by NABARD under RIDF-IX have been already taken up. Of this, 313.00 km of roads have been completed. Balance works are in various stages of progress.

Another project for improvement to 247 roads covering 1153.30 km at a cost of Rs.112.96 crores has been sanctioned under RIDF-X and these works are being entrusted.

The Budget Estimate for 2005-2006 is Rs.100 crores.

## 1.7. Honourable Chief Minister's Comprehensive Road Infrastructure Development Programme

Under the Honourable Chief Minister's Comprehensive Road Infrastructure Development Programme, it has been proposed to take up improvements of State Highways at a cost of Rs.300 crores, Major District Roads at a cost of Rs.300 crores and Other District Roads at a cost of Rs.220 crores during 2005-06. Reconstruction of 52 Distressed bridges is proposed to be taken up at a cost of Rs.30 crores in 2005-06.

Apart from the above, the spill over works of improvement of State Highways, Major District Roads and Other District Roads to the tune of Rs.200 crores are to be completed in the year 2005-06.

Thus, 2064 km of State Highways, 2114 km of Major District Roads, 5018 km of Other District Roads and 52 bridge works for a total value of Rs.1050 crores are to be taken up and completed in 2005-06 under this programme.

## 1.8. Rural Roads

Agriculture is the main occupation in most of the villages in Tamil Nadu. It is, therefore, considered necessary to improve village roads to all weather roads (up to B.T. Standards), so as to enable the village people to transport their agricultural produce speedily to the nearby markets. The roads are improved up to B.T. level under the following schemes.

- (a) Rural Roads Scheme
- (b) Providing connectivity to Adi-Dravidar habitations under Special Component Plan
- (c) Bus Route Improvement Scheme

### (a) Rural Roads Scheme

Criteria followed for taking up works under this scheme are:

- The village population should be more than 500 (1991 census)
- > The prescribed road length shall be more than 1.60 km
- > The village should not have been connected by any other B.T. road.

The road connectivity programme to villages having population between 500-1000 is under good progress. It has been assessed that there are 4986 villages with a population between 500-1000 without having all weather road connectivity. So far, 999 villages have been provided connectivity covering 2273.86 km at a cost of Rs.354.13 crores up to 2004-2005. During 2004-2005, approval for a new project for improvement of 226.95 km at a cost of Rs.36.26 crores for providing connectivity to 215 villages has been obtained from NABARD under RIDF-X and these works are being entrusted.

The Budget Estimate for 2005–2006 is Rs.54 crores.

# (b) Providing Connectivity to Adi-Dravidar Habitations under Special Component Plan

This scheme provides road connectivity to villages having more than 50% of Adi-Dravidar Population. Till the end of 2004-05, connectivity to 342 villages covering 907.91 km at a cost of Rs.120.96 crores have been provided. During 2004-2005, approval for a new project for improvement of 66.03 km at a cost of Rs.10.52 crores for providing connectivity to 58 villages has been obtained from NABARD under RIDF-X and these works are being entrusted.

The Budget Estimate for 2005–2006 is Rs.17 crores.

## (c) Bus Route Improvement Scheme

Under this scheme, the Panchayat Union roads on which buses are plying for more than three years are taken up for improvement as B.T. roads to Other District Road standards. Till the end of 2004-05, 1478.96 km have been completed. During 2004-2005, approval for a new project for improvement of 165.00 km at a cost of Rs.27.20 crores has been obtained from NABARD under RIDF-X and these works are being entrusted.

The Budget Estimate for 2005–2006 is Rs.29 crores.

## 1.9. Sugarcane Roads:

During 2004-2005, approval for a new project for improvement of 246 km at a cost of Rs.17.76 crores has been obtained from NABARD under RIDF-X and these works are being entrusted.

## 2. Bridge Works

## 2.1. Rehabilitation of Distressed Bridges on Government Roads

Under Part II Scheme for the year 2005-2006, 52 bridges on Major District Roads and Other District Roads have been proposed to be reconstructed at a cost of Rs.30 crores.

The Budget Estimate for 2005-2006 is Rs.35.68 crores.

## 2.2. Other District Roads - NABARD Assisted Bridges

During 2004-2005, a new project for construction / reconstruction of 8 bridges at a cost of Rs.6.02 crores have been sanctioned under RIDF-IX. Of this, 7 bridges have been completed. Balance 1 bridgework is in progress.

Approval for a new project for construction of 5 bridges at a cost of Rs.5.84 crores has been obtained from NABARD under RIDF-X and for which administrative sanction has been issued. The works are being entrusted.

## 2.3. Rural Road Bridges

## a) Rural Roads Scheme

During 2004 - 2005, 5 bridges have been constructed under this scheme. During 2004 - 2005, approval for a new proposal for construction / reconstruction of 9 bridges at a cost of Rs15.37 crores has been obtained from NABARD under RIDF X and for which administrative sanction has been issued. These works are being entrusted.

## b) Providing Connectivity to Adi-Dravidar Habitations Under Special Component Plan

During 2004 - 2005, approval for a new proposal for construction / reconstruction of 2 bridges at a cost of Rs.1.15 crore has been obtained from NABARD under RIDF-X and for which administrative sanction has been issued. These works are being entrusted.

## (c) Bus Route Improvement Scheme

During 2004 - 2005, 7 bridges have been constructed. During 2004 - 2005, approval for a new proposal for construction / reconstruction of 5 bridges at a cost of Rs.5.24 crores has been obtained from NABARD under RIDF X and for which administrative sanction has been issued. These works are being entrusted.

## 2.4 Sugarcane Roads Scheme

During 2004-2005, approval for a new project for construction of 7 bridges at a cost of Rs.11.41 crores has been obtained from NABARD under RIDF-X and these works are being entrusted.

# 2.5. Construction of Road Over / Under Bridges (ROB/ RUB) in lieu of existing Railway Level Crossings (LC)

Six works have been sanctioned under this scheme. Of these, Railway over Bridge at MIT gate near Chromepet Railway Station and Palakkarai (Trichy District) on Heber road are in progress. Other 4 works at Srirangam, Uthamarkoil, Thennur and St. Thomas Mount have been completed and opened for traffic.

The Budget Estimate for 2005-2006 is Rs.11.07 crores.

Administrative sanction has also been accorded to take up construction of 36 Nos. of ROBs/RUBs in lieu of existing level crossings at a total cost of Rs.513.92 crores in different parts of Tamil Nadu. Out of these, 31 works are in progress and the remaining works are under various stages of pre-implementation

The Budget Estimate for 2005-2006 is Rs.125 crores.

# 2.6. Construction / Reconstruction of Bridges Under HUDCO Assistance

Administrative sanction has been issued for construction/reconstruction of 61 bridges at a cost of Rs.60 crores under HUDCO loan assistance. Of which, 26 bridge works have been completed, 25 bridge works are in progress. 1 bridge is under estimation stage. 7 bridges are under tender stages. 2 bridge works are deleted.

The Budget Estimate for 2005-2006 is Rs.17.87 crores.

### 2.7. Construction / Reconstruction of Bridges in Delta Districts

Administrative sanction has been issued for construction/reconstruction of 48 bridges at a cost of Rs.33.49 crores under NABARD assistance in Delta Districts. Of which, 3 bridge works have been completed. 38 bridges are in progress. 6 bridge works are in tender stages. 1 bridge work is deleted.

The Budget Estimate for 2005-2006 is Rs.32.66 crores.

### 3. Roads in Special Areas

### 3.1. Inner Ring Road - Chennai

All the works, except km 0/0-5/0 of Southern Sector of Inner Ring Road, have been completed. In the above stretch land acquisition is yet to be completed.

The Budget Estimate for 2005-2006 is Rs.8 crores.

## 3.2. Madurai Radial Roads

Improvements to radial roads leading to Madurai have been taken up at a cost of Rs.112 crores by availing of HUDCO loan. This project consists of 12 road works comprising of 125.36 km length of roads, 1 High Level Bridge and 1 Road Over Bridge. All road works have been completed and the High Level Bridge is nearing completion and is expected to be completed in this year itself. The work of construction of Road Over Bridge at Ellis Nagar is in progress.

The Budget Estimate for 2005-2006 is Rs.10 crores.

# 3.3. Bypasses

In order to avoid traffic congestion in cities and towns, it is essential to have bypasses and ring roads. Taking this into consideration, action is being taken to construct ring roads and radial roads to 5 important towns and bypasses to 20 important towns.

## 3.4. Chennai Metropolitan Development Plan

An investment plan to develop the infrastructure within the Chennai Metropolitan Area at a cost of Rs.18,000 crores has been finalised and works are being taken up in a phased manner.

Under this Plan, provision of Rs.50 crores was made in 2003-04 for Traffic and Transport Improvement in Chennai City. Proposals were approved for 28 works at a cost of Rs.30.35 crores and 27 works at a cost of Rs.19.53 crores. Out of this, 29 works for a length of 86.30 km have been completed at a cost of Rs.33.71 crores. The balance works are in good progress.

A massive programme of 26 works in Chennai Metropolitan Area for Rs.369 crores for 2004-05 has been approved and being entrusted.

In view of the rapidly increasing traffic in Chennai and surrounding areas, a plan with an outlay of Rs.540 crores has to be prepared and is to be sent to World Bank under TNUDP III for improving the traffic and transportation services in the City.

The Budget Estimate for 2005-2006 is Rs.148 crores.

# 3.5. Improvement of Panchayat, Panchayat Union Roads:

The Rural Development Department had programmed to improve 5850 Km. length of Panchayat, Panchayat Union and Unclassified Roads at a total cost of Rs.300 crores. In first phase, works to the tune of Rs.150 crores were carried out by the Rural Development Department during 2004. Subsequently, as per the policy decision taken to transfer the implementation of Rural Roads Programme to Highways Department, orders have been issued to take up the second phase of improvement of Panchayat, Panchayat Union and Unclassified roads at a cost of Rs.150 crores by Highways Department during the current year. Road works for a length of 3038 Km are in progress.

# 3.6. Construction of Bridge at km. 53/10 - 54/2 of Vridhachalam - Salem Road Damaged by the Heavy Floods:

The brick arch bridge constructed some 126 years back across Manimuktha River collapsed during the heavy rain on 13/11/2004. The Government have accorded administrative sanction for construction of a new bridge at the same alignment at a cost of Rs.5 crores. This work will be taken up soon.

# 3.7. Tamil Nadu Road Infrastructure Development Corporation

The Government have issued orders for the formation of Tamil Nadu Road Infrastructure Development Corporation to formulate, undertake, implement, improve and maintain the road infrastructure in the State of Tamil Nadu. This Corporation will be the nodal agency for the implementation of Prime Minister Gram Sadak Yojana (PMGSY) programme and other Rural Roads development programmes through Highways Department.

The Tamil Nadu Road Infrastructure Development Corporation will mobilise Rs.100 crores in the first stage for road development programmes in 2005-06.

# 3.8. Prime Minister Gram Sadak Yojana (PMGSY)

The Government have issued orders that Phase-I, II and III works of PMGSY will continue to be executed by Rural Development Department itself and Phase-IV works of PMGSY programme in all districts except Nilgris district will be completed by the Highways Department. The Government have also fixed the Chief Engineer (General) Highways Department as State Implementing Officer, Divisional Engineers of Highways Department as district-wise nodal officers for the implementation of PMGSY programme. The details such as works, funds, accounts, records etc. relating to the above programme are being received from Rural Development Department. The Tamil Nadu Road Infrastructure Development Corporation formed recently will be the nodal agency for this purpose.

# 4. Special Projects

# 4.1. Tamil Nadu Road Sector Project

Tamil Nadu Road Sector Project is under implementation with World Bank assistance. Out of the Project cost of Rs.2160 crores, the World Bank has provided loan assistance to the tune of Rs.1670 crores. This project consists of the following three components.

- 1. Upgradation of 742 Km of Roads.
- 2. Enhanced periodical maintenance of 2000 km of roads.
- 3. Institutional strengthening.

Under upgradation component, Civil works in respect of Package 1 (Arcot – Elavanasur, Polur – Chengam, Vridhachalam – Kumbakonam - Tiruvarur - Ariyalur – Jayankondam - 393 km) have commenced. For Package 2 (Nagapattinam – Kattumavadi – 116 Km) and Package 3 (Kattumavadi to Ramanathapuram – 100 Km) contracts are approved and works commenced. For Package 4 (Ramanathapuram to Tuticorin – 118 Km) rebids have been invited.

Under Maintenance Component of this project, it has been programmed to take up enhanced periodical maintenance in 2000 Km of Government Roads in four years period. Road works under the first year programme for a length of 634 Km at a cost of Rs.180 crores are in progress. Road works under the second year maintenance programme for a length of 450 Km at a cost of Rs.158 crores will be taken up during 2005-06.

The Budget Estimate for 2005-2006 is Rs.550 crores.

## 4.2. Central Road Fund Scheme

The Government of India, through an Act of Parliament have set up a Central Road Fund with the accruals from the Special Cess levied on Petrol and Diesel in the year 2000. Administrative sanction has been obtained for 445 works during 2001-2004 at a cost of Rs.307.93 crores. Of which 423 works have been completed and the balance works are nearing completion.

Further approval of Government of India for 107 works consisting 100 road works and 7 bridge works at a cost of Rs.140.62 crores have been obtained under the scheme of Central Road Fund and these works are in progress. The Budget Estimate for 2004-2005 is Rs.125 crores.

## 4.3. Western Ghats Development Programme

This scheme is to be implemented in 8 districts, viz., Erode, Coimbatore, Dindigul, Madurai, Theni, Virudhunagar, Tirunelveli and Kanyakumari. During 2004-2005, sanction has been accorded for 2 road works and construction of 2 retaining walls at a cost of Rs.52.50 Lakhs in Theni, Dindigul and Madurai districts. Of this, 1 road work and construction of 1 retaining wall has been completed and the balance works are in progress. Further, 4 road works and 1 bridge works costing Rs.87 lakhs in Kanyakumari, Theni and Dindigul districts have been proposed for approval under Annual Plan 2005-2006.

The Budget Estimate for 2005-2006 is Rs.0.50 crores.

## 5. Avenue Trees

At present, there are several lakhs of fruit bearing, shade giving avenue trees along the road margin in the State. The right of usufructs are given to local bodies. It is programmed during this year to involve Forest Department with the responsibility of planting new plants on road margins and maintaining them upto a certain period and subsequently hand over to Highways Department.

## 6. Highways Research Station

## 6.1. Research Activities

The Highways Research Station is contributing its technical support to the Highways Department since 1957 by carrying out applied research in the following four wings.

- a. Soil and Foundation Engineering
- b. Concrete and Structures
- c. Bitumen and Aggregate
- d. Traffic and Transportation

Under Part-II Scheme for 2005-06, approval has been obtained for Rs.75 lakhs for carrying out research studies. Of these, research study on the utilisation of flyash, copper slag for road pavement works and utilisation of quarry dust for sub base works, using Geo fabric for drainages, using copper slag waste in Bituminous works are considered important as these schemes are helping disposal of the waste products which cause environmental hazards

# 6.2. Total Quality Management Programme

Highways Research Station is playing active role in managing and assuring quality of work to serve the above purpose in extending life of Road pavements and Bridge structures.

Regional Labs at Thanjavur, Madurai, Tirunelveli and Coimbatore and 13 Sub Divisions are engaged in monitoring the quality aspects of road and bridge works throughout Tamil Nadu under the control of Director, Highways Research Station. Random and routine quality check inspections are being done by Highways Research Station for extracting quality works. The programme of quality management by Highways Research Station is formulated to assess the effectiveness of quality achievement in respect of Roads and Bridges. Proposals are underway to divert 50% of quality control provision available in the estimate of all works for better quality managements.

## 6.3. Data Bank

With a view to have on-hand information about roads and bridges, a "DATA BANK' has been created for all technical details and vital statistics. The bridge details for 614 major bridges and 3408 minor bridges and traffic census at 6900 locations of State Highways, Major District Roads and Other District Roads taken during the year 1999 and 2002 have already been collected and stored. The traffic census taken during the year 2004 is being stored.

## 6.4. Training Programme

At present, quality control training is being offered at Highway 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 during the third week of every month. This is a continuous programme.

## 7. Public-Private Participation

Road development requires substantial capital investments for upgradation of the Road Network. Even with increased budgetary support, most of the road network remains in need of maintenance and upgradation. With the growing demand for road transport, the construction of new bye-passes, bridges, high quality roads etc. are required to be taken up so as to see a revival in the sector. It has become necessary to attract private investment to undertake road projects with active support from Government. Action has been taken to develop certain important roads with private sector participation.

# 7.1. East Coast Road

Tamil Nadu Road Development Company (TNRDC), a joint venture company with equal participation of TIDCO and IL & FS Ltd, have been formed to identify the road projects on commercial format, plan, design and implement it as managers of the projects. The improvement and maintenance of East Coast Road from Km. 22/3 - 135/5 has been entrusted to Tamil Nadu Road Development Company, as a step towards private participation in management of roads.

# 7.2. IT Expressway

The widening and improvement of road from Madhya Kailash in Adayar to Siruseri in Old Mahabalipuram road for 20 km length along with East Coast Road link road for 2 km has been entrusted to the IT Expressway Limited (ITEL) with 100% subsidiary of TNRDC under public-private participation. The above road is designed with world class standards with 6 lane, 2 Non-Motorised lane and 2 service lane. Landscaping will be provided in the centre median and wherever space is available. Also this road will be provided with value added services like Highway Patrol, 24 hours Ambulance service, Help line, tow away vehicle etc. It is proposed to plant trees wherever feasible. The project is targeted for commissioning by December 2005.

This Express Highway will serve as connectivity to all IT companies situated in this area and will also promote industrial sector and generate employment opportunities.

## 7.3. National Highways ROB

The Construction of ROB at Lalapet in N.H.67 at Km. 183/4 has been entrusted with TNRDC by MORT&H on BOT format. The TNRDC has already called for tender for the above ROB and expected to be finalized by the end of April 2005. The period allowed for completion is 18 months. The estimate cost is about 35.00 crores.

# 7.4. Ennore Manali Road Improvement Project (EMRIP)

The Chennai - Ennore Port connectivity Project is taken up by National Highways Authority of India on a commercial format and a separate special purpose vehicle company named Chennai Ennore Port Road Company Limited has been formed. The State Government equity in this company is Rs.30 crores in kind by handing over of Northern portion of Inner Ring Road (IRR), Manali Oil Refinery Road (MORR) and Thiruvottriyur - Ponneri - Panchetty Road (TPP).

The EMRIP Project consist of

1. Sea protection works on Ennore Expressway.

- 2. Widening of Ennore Express way to 4 lane along with service Roads on both sides for 6.8 Km.
- 3. Improvement and widening of TPP road
- 4. Strengthening of IRR and MORR road

Sea protection work is in progress and other components of the project are in the finalisation of DPR and tendering stages. The project is programmed to complete by December 2006. The cost of the project is Rs.161.00 crores.

# 8. Highways Act

The Tamil Nadu Highways Act has been enacted during 2001. The Tamil Nadu Highways Act 2001 provides adequate powers to the Highways Authorities to stop ribbon development, eviction of unauthorised encroachment in Highways boundary and to ensure the regulated growth of road side activities through zoning, building lines etc., Encroachment of Highways are required to be cleared in order to ensure smooth flow of traffic and reduce accidents.

# 9. Institutional Development Study

# 9.1. Institutional Strengthening

The Highways Department has embarked on an Institutional Strengthening Programme to improve the effectiveness and efficiency of the Department. International consultants have been engaged to assist the Department in this programme of work.

## 9.2. Road Safety Policy

The Highways Department will be an active participant in realising the Government of Tamil Nadu's proposed goals to implement the Road Safety Strategy which cover (i) Strengthen the institutional frame work and provide effective management (ii) improve funding mechanism (iii) develop safer roads (iv) encourage safer driving and safer vehicles (v) protect and educate vulnerable road users (vi) provide effective enforcement and efficient licensing and (vii) upgrade the emergency medical response. This will reduce fatalities and serious injuries.

# 9.3. Information Technology Development, Procurement and Implementation

As part of the Institutional Strengthening Programme of Tamil Nadu Road Sector Project (TNRSP), the Highways Department will procure computer hardware and software and implement Information Technology and IT services throughout the organisation.

# 9.4. Geographic Information System (GIS)

As part of the software implementation, consultancy services are planned to develop and implement GIS software in both English and Tamil languages. This system will create an up to date digital database of Tamil Nadu's core roads, bridges and culverts. This system is to provide a more systematic manner for archiving maps and retrieving statistical data especially in identifying road safety accident locations, so the specific remedial actions can be undertaken and the intervention monitored.

### 9.5. Road Management System

The Highways Department has engaged consultants to provide technical assistance to establish a road management system (RMS) and the core road network of Tamil Nadu. This will prioritise road maintenance works, planning and budgeting

#### 10. Designs and Investigation

The Designs and Investigation wing of Highways Department is engaged in investigation of projects i.e., surveying, collection of field particulars for the projects and designing and estimation of the projects.

Investigation involves collection of field particulars such as subsoil particulars, hydraulic particulars and other special data relevant to each project site and formulation of a proposal and forwarding the same for detailed design. Modifications in the already approved designs due to change in foundation and approval of alternate designs demanded in the tenders for the projects costing more than Rs. 5.00 crores are also undertaken by this wing.

During 2005-06, action is being taken to prepare designs and estimates for 53 river bridge works costing Rs.135.17 crores and 10 ROB/RUB works costing Rs.150.63 crores.

# IV. PART II SCHEMES FOR THE YEAR 2005 - 2006

# 1. REHABILITATION OF DISTRESSED BRIDGES

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
			Lakhs)
1	Reconstruction of Bridge at	58.00	58.00
	Km 31/4 of Thiruvallur -		
-	Karasangal Road (MDR)	50.00	50.00
2	Reconstruction of Bridges at Km 9/10, 12/8 and 18/4 of Abdullapuram - Pakkam Road (MDR)	58.00	58.00
3	Reconstruction of Bridge at Km 13/4 of Arni - Vandavasi Road (MDR)	139.00	139.00
4	Reconstruction of Bridge at Km 17/8 of Poovalur - Siruganur - Thirupattur Road (MDR)	39.00	39.00
5	Reconstruction of Bridge at Km 5/6 of Allithurai - Thogamalai Road (MDR)	72.00	72.00
6	Reconstruction of Bridge at Km 10/4 of Keevalur - Katchanam Road (MDR)	95.00	95.00
7	Reconstruction of Bridge at Km 33/6 of Kumbakonam - Koradacheri - Lakshmankudi - Mavoor Road (MDR)	90.00	90.00
8	Reconstruction of Bridges at Km 6/6 and 6/10 of Attur - Veeraganur Road (MDR)	78.00	78.00
9	Reconstruction of High Level Bridge at Km 0/2 of Anaimalai - Poolankinar Road (MDR)	199.00	199.00
10	Reconstruction of Bridge at Km 0/6 of Loop Road connecting Km 10/4 of Erode - Sathy Road and Km 61/8 of Salem - Cochin Road (MDR)	47.00	47.00

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
		(Rs. in Lakhs)	
11	Reconstruction of Bridge at Km 16/2 of Coonoor - Kundah Road (MDR)	19.00	19.00
12	Reconstruction of Bridge at Km 2/10 of Sikkandarchavadi - Adalai Road (MDR)	9.00	9.00
13	Reconstruction of Bridge at Km 46/2 of Bathalagundu - Peraiyur Road (MDR)	9.00	9.00
14	Reconstruction of Bridge at Km 41/6 and 43/6 of Melur - Thiruppathur Road (MDR)	19.00	19.00
15	Reconstruction of Bridge at Km 26/8 of Melakkal - Peranai Road (MDR)	7.00	7.00
16	Reconstruction of Bridge at Km 9/2 of Sankarapuram - Chinnamanur Road (ODR)	78.00	78.00
17	Reconstruction of Bridge at Km 3/8 of Silukkuvarpatty - Pallapatty Road (MDR)	28.00	28.00
18	Reconstruction of Bridge at Km 33/10 of Vadamadurai - Oddanchatram Road (MDR)	11.00	11.00
19	Reconstruction of Bridge at Km 44/8 of Kodai Ghat Road (MDR)	14.00	14.00
20	Widening and Redecking of Bridge at Km 36/2 of Kodai Ghat Road (MDR)	6.00	6.00
21	Reconstruction of Bridge at Km 7/2 of Kodai - Cochin Road (MDR)	14.00	14.00
22	Reconstruction of Bridge at Km 5/8 of Kovilpatti Junction to Pudukkottai District Frontier Road (MDR)	15.00	15.00
23	Reconstruction of Bridge at Km 51/10 of Madurai - Devakottai Road (MDR)	6.00	6.00

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
		(Rs. in Lakhs)	
24	Reconstruction of Bridge at Km 29/2 of Balamore Road (MDR)	72.00	72.00
25	Reconstruction of Bridge at Km 16/2 of Cuddalore - Pallineliyanur Road (MDR)	95.00	95.00
26	Reconstruction of Bridge at Km 19/6-(ii) of Kallakurichi - Koothakudi Road (MDR)	24.00	24.00
27	Reconstruction of Bridge at Km 13/8-(ii) of Kallakurichi - Kachirapalayam Road (MDR)	24.00	24.00
28	Reconstruction of Bridges in Km 8/2 - 15/10 (8 Nos.) of Solathiram - Srimushnam Road (MDR)	37.00	37.00
29	Reconstruction of Bridges at Km 7/2, 10/2 and 11/10 of Keerapalayam - Sethiyathope Road (MDR)	29.00	29.00
30	Reconstruction of Bridges in Km 7/2 - 12/2 (9 Nos.) of Cuddalore - Pallinelianur Road (MDR)	35.00	35.00
31	Reconstruction of Bridge at Km 20/10 - 21/2 of Mathur - Thittakudi Road (MDR)	193.00	193.00
32	Reconstruction of Bridge at Km 38/4 of Pudukkottai - Pattukkottai Road (MDR)	150.00	150.00
33	Reconstruction of Bridge at Km 6/4 of Saliyamangalam - Papanasam Road (MDR)	72.00	72.00
34	Reconstruction of Bridge at Km 8/10 of Tiruchengode - Ariyanur Road (MDR)	5.00	5.00
35	Reconstruction of Bridges at Km 13/10, 14/6 and 14/8 of Sankari - Pallipalayam Road (MDR)	10.00	10.00

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
		(Rs. in Lakhs)	
36	Reconstruction of Bridge at Km 0/2 of Komarapalayam - Edappady Road (MDR)	3.00	3.00
37	Reconstruction of Bridges at Km 0/2, 0/6, 0/10 and 1/2 of Tiruchengode Bypass Road (MDR)	15.00	15.00
38	Reconstruction of Piped Causeway at Km 7/8 of Shoolagiri - Berigai Road (MDR)	97.00	97.00
39	Reconstruction of Bridge at Km 11/4 of Vaiyampatti - Mylampatti Road (via) Palaviduthi (MDR)	48.00	48.00
40	Reconstruction of Bridge at Km 2/6 of Tirppur - Padiyur Road (MDR)	77.00	77.00
41	Reconstruction of Bridge at Km 46/2 of Dharapuram - Tiruppur Road (MDR)	77.00	77.00
42	Reconstruction of Existing Steel Bridges at Km 11/8 and 11/10 of Gobi - Savandapur Road (MDR)	210.00	210.00
43	Reconstruction of Bridge at Km 8/2 of the road from Andipatty to meet at Km 4/2 of Jeyamangalam - Andipatti Road (MDR)	33.00	33.00
44	Reconstruction of Bridge at Km 4/8 of Chinnamanur - Seepalakottai Road (MDR)	10.00	10.00
45	Reconstruction of Bridge at Km 4/10 of Cumbum - Cumbummettu Road (MDR)	5.00	5.00
46	Reconstruction of Major Bridge at Km 16/10 of Papanasam - Upper Dam (Mundanthurai) Road (ODR)	310.00	310.00

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
			Lakhs)
47	Reconstruction of Bridge at Km 0/2 of Petmanagaram - Vagaikulam Road (MDR)	42.00	42.00
48	Reconstruction of Bridge at Km 2/2 of Karungulam - Moolakaraipatti Road (MDR)	42.00	42.00
49	Reconstruction of Bridge at Km 5/4 of Rajapalayam - Ayyanarkoil Road (MDR)	39.00	39.00
50	Reconstruction of Bridge at Km 8/8 of Rajapalayam - Keelarajakularaman Road (MDR)	28.00	28.00
51	Reconstruction of Bridges in Km 5/10 - 19/6 (17 Nos.) of R.K.Pet - Pallipet Road (MDR)	76.00	76.00
52	Reconstruction of Bridge at Km 2/8 of Thiruppullani - Sethukkarai Road (ODR)	32.00	32.00
	TOTAL	3000.00	3000.00

# 2. TOOLS AND PLANT

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
		(Rs. in Lakhs)	
i	Purchase of two Air Conditioners (Split type) of 1.5 tonnes capacity with false ceiling and flush door arrangements to the computer rooms of the office of the Chief Engineer, General, Highways Department, Chepauk, Chennai.	0.95	0.95
ii	Purchase of two Computers (Pentium IV) with two Dot- Matrix Printers and UPS in the office of the Chief Engineer, General, Highways Department, Chepauk, Chennai.	0.88	0.88
III	Purchase of one Laser Printer (up to A3 Size) to the office of the Chief Engineer, General, Highways Department, Chepauk, Chennai.	0.23	0.23
iv	Upgradation of available one Pentium I Computer and three Pentium II Computers in the Office of the Chief Engineer, General, Highways, Chennai to Pentium IV capacities.	0.94	0.94
V	Purchase of Hardware and Software to the Computer room of the office of the Chief Engineer, Designs, Highways, Chennai.	50.00	50.00
	Total	53.00	53.00

SI. No.	Name of Work	Ultimate Cost	Budget Estimate 2005-2006
		(Rs. in	Lakhs)

# 3. CHIEF ENGINEER, NATIONAL HIGHWAYS - TOOLS AND PLANT

0.00
5.60
2.00

# 4. HIGHWAYS RESEARCH STATION- RESEARCH AND DEVELOPMENT

	Grand Total	3135.60	3135.60
	Total	75.00	75.00
	iii. Ductilometers		
	ii. Humidity Chamber		
	i. Bitumen Extractors		
V	Purchase of Laboratory Equipments	4.00	4.00
iv	Study on the effect of using Quarry Dust and copper slag in sub-base	35.00	35.00
iii	Use of High Volume Flyash for Rigid pavement and base courses	15.00	15.00
ii	Purchase of Automatic Marshall's Testing Machine	16.00	16.00
i	Purchase of Geogauge	5.00	5.00

## V. TAMIL NADU MARITIME BOARD

Tamil Nadu with its vast Coastline of about 992 Km has 3 major ports at Chennai, Ennore and Thoothukudi and 15 minor ports at Kattupalli, Ennore Minor Port, Cuddalore, Thiruchopuram, PY-3 Oil Field, Tirukkadaiyur, Nagapattinam, Pamban, Rameswaram, Valinokkam, Punnakkayal, Manappad, Kudankulam, Kanyakumari and Colachel.

Tamil Nadu Maritime Board was constituted under Tamil Nadu Maritime Board Act, 1995 (Tamil Nadu Act 4/96) with effect from 18.03.1997. The Board is administering, controlling, regulating and managing the minor ports in Tamil Nadu under the Chairmanship of Hon'ble Minister for Transport and Electricity Government of Tamil Nadu.

The Tamil Nadu Maritime Board gives top priority to the industrialisation in the State and it encourages setting up of Captive Ports / Jetties / Moorings for the port based oil industries / Thermal power projects and also multi user ports on "BOOT" basis.

Of the 15 minor ports, 8 ports viz., Kattuppalli, Ennore Minor Port, Thiruchopuram, PY-3 Oil Field, Tirukkadaiyur, Punnakkayal, Manappad and Kudankulam have been declared as captive ports under private entrepreneurship where the development of entire infrastructure facilities is the responsibility of the companies concerned. Out of these 8 captive ports, 4 ports, viz., Ennore Minor Port, PY-3 Oil Field, Tirukkadaiyur and Kudankulam are operational at present. The remaining 4 captive ports Kattupalli, Punnakkayal, Manappad and Thiruchopuram are yet to take off. There is no activity in Rameswaram and Valinokkam ports. Small ships occasionally pass through Pamban channel. Kanyakumari port is used for Passenger Ferry Service.

The main commodities handled at the minor ports are as follows:-

### **EXPORT**

Crude Oil General Cargo Cement

### **IMPORT**

Edible Oil Liquid Ammonia Naphtha Crude Oil Machineries General Cargo

#### APPROACH

The Private participation in construction / development of Ports / Jetties will be encouraged through a well set out transparent procedure and each proposal would be considered on its own merits.

- The existing Minor ports will be offered for private participation for further expansion.
- To maintain transparency, competitive bids will be invited through Global Notice / Tenders.
- The project will be 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.

The Government shall recover a reasonable amount per Tonne on the cargo handled. A minimum quantum to be handled is fixed in a phased manner.

The thrust of the Port Sector is to promote cordial atmosphere for industries to realise the linkage between Port Development and Industrial growth. It also aims to accelerate the pace of economic growth of the State through private participation by developing a number of captive ports. The Port Policy also promotes ship breaking/repairing industry, leisure and water sports activities in Tamil Nadu.

## Cuddalore

The Government of Tamil Nadu have decided to develop Cuddalore Port through Private Sector participation. In this connection, Tamil Nadu Maritime Board appointed UTI Bank Ltd., / RITES Ltd., as a Technical Assistance Provider. They have prepared the Initial Screening Report, Draft Bid Document, Draft Concession Agreement and suggested time schedule for implementation of Cuddalore Port Development Project. It is under consideration.

This port suffered severe damages to its infrastructure such as, perimeter wall, breakwater, wharfs, etc. due to the Tsunami. The damage is estimated as about Rs. 2310 lakhs. Reconstruction of these facilities are being taken up.

## Nagapattinam

Edible Oil storage terminals under Private Sector were constructed at Nagapattinam port. Edible Oil vessels are regularly calling at this port. Cement is exported through this port. It is anticipated that more number of ships will be calling at the port for export of cement and import of Edible Oil during the year 2005-06. Recently, the Government of India in the Ministry of Agriculture permitted to handle Plant and Plant materials like Copra cake etc. at this port.

Development of Nagapattinam port was taken up in two phases at a cost of Rs. 500 lakhs for strengthening and extension of breakwaters, deepening the channels, providing river training and dredging. The first phase of the works are in progress at a cost of Rs. 100 lakhs.

Meanwhile, this port suffered severe damages to its infrastructure such as perimeter wall, breakwaters, wharfs etc. due to the Tsunami. The damage is estimated as about Rs.5060 lakhs. Government of Tamil Nadu have requested Government of India to sanction this amount for reconstruction of the port. Reconstruction of these facilities will be taken up after the grants are received from Government of India.

### Thiruchopuram

Thiruchopuram port was declared for the captive use of M/s. Nagarjuna Oil Corporation Ltd., for import and export of Crude Oil and oil products in respect of their proposed oil refinery at Thiruchopuram. This port has been notified as customs port by the Government of India. The Government of India, in the Ministry of Environment and Forests have also accorded environmental clearance for setting up the marine terminal facilities. The port is yet to be made operational.

## Tirukkadaiyur

Tirukkadaiyur port was declared for the captive use of M/s. PPN Power Generating Company for handling Fuel-Naphtha required for their 330 MW Gas Combined Cycle Power Project at Pillaiperumalnallur. Vessels are regularly calling at this port and discharging Naphtha.

### Manappad

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 MTs. of LNG per annum required for the proposed 2000 MW Gas Turbine Power Project to be set up by M/s. Indian Power Projects Ltd., at Vembar. The company is yet to obtain financial closure for the project.

### Kudankulam

Kudankulam port was declared for the captive use of M/s. Nuclear Power Corporation of India Ltd., for their Nuclear Power Project at Kudankulam. They have constructed necessary offshore infrastructural facilities to handle Over-dimensional and heavy lift Machineries.

### Colachel

M/s. RITES Ltd., in their port "Vision 2020" report had identified Colachel as a suitable port for developing into a Container Hub Port. The interest shown by the Government of Malaysia in developing this port into a major container transhipment port has not borne fruit for want of suitable financial arrangements by them. However, considering the potential and the viability of this project, the Government of Tamil Nadu have requested the Government of India to include the proposal of developing the Colachel Port in the "Sagar Mala" Project.

## Sethusamudram Ship Canal Project

Sethusamudram Ship Canal Project envisages excavation of an artificial ship canal close to Rameswaram island 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 time.

The initial alignment of this canal was through the Eastern part of Rameswaram Island. The Government of India have nominated NEERI (M/s. National Environmental Engineering Research Institute), Nagpur to conduct an Environment Impact Assessment and suggest the best alignment with least environment impact. Now, the NEERI, Nagpur has finalised the alignment of Sethusamudram Ship Canal Project route from Tuticorin to Adams Bridge (Near Rameswaram) . Further studies are taken up by M/s Tuticorin Port Trust, as a nodal agency, on behalf of Government of India. The Government of India has set up the Sethusamudram Corporation Limited on 6-12-2004 for this purpose.

## VI. POOMPUHAR SHIPPING CORPORATION LTD

M/s. Poompuhar Shipping Corporation Limited (PSC) was formed on 11.04.1974 under the Companies Act, 1956 with the objective of transporting the entire requirements of coal for the Thermal Power Stations of Tamil Nadu Electricity Board (TNEB). The coal required by TNEB is transported from the load Ports at Haldia, Paradip and Vizag and discharged at Ennore and Tuticorin Ports. M/s. Poompuhar Shipping Corporation Limited acquired 3 specially designed shallow draft geared bulk carriers of 40000 DWT between August 1985 and January 1987 which are exclusively utilised for this purpose.

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

	Quantity	Turnover	Net Profit/Net
Year	moved	(Rs in	Loss
	(in Lakh MT)	Lakhs)	(Rs in Lakhs)
2000-2001	151.44	42728.50	(-) 445.35
2001-2002	146.21	34029.76	(-) 192.71
2002-2003	146.12	30473.69	(-)1466.05
2003-2004	142.11	39199.36	(+) 857.08
2004-2005	139.74	43952.27	(+) 37.78

#### Coal movement in 2005-2006

In addition to its three owned ships, the Corporation also charters ships from Indian and Foreign ship owners for transport of coal required by TNEB for the various Thermal Power Stations in Tamil Nadu. For 2005-2006, it is expected to move about 140.00 lakhs tonnes of coal for TNEB. Currently, the Corporation has one Self-Unloader vessel and two Panamax Gearless vessels on long-term charter.

### Ennore Port

On 1<sup>st</sup> February 2001, the Ennore Port was dedicated to the Nation by the Hon'ble Prime Minister of India. This project has been implemented mainly for transportation of coal for Ennore Thermal Power Station at North Chennai. As per recommendation of RITES and Pallavan Transport Consultancy Services, on the Paradip-Ennore Sector, the CHSU (Craned Hopper Self Unloader) and Gearless vessels are operated to economise the cost of transportation by virtue of automatic loading at Paradip Port and faster discharge at Ennore Port by discharging cargo through the conveyor belt system. The Corporation has been using Ennore Port to unload the coal for TNEB purposes.

## Kanniyakumari Ferry Service

Besides transporting coal to TNEB Thermal Power Stations, M/s. Poompuhar Shipping Corporation Limited is also operating a ferry service from the shore at Kanniyakumari to the Vivekananda Rock Memorial and the Ayyan Thiruvalluvar Statue. On 26<sup>th</sup> 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 and could not be traced out by the Coast Guard. After repairing the existing two launches, M.L.Thamiraparani and M.L. Bhagirathi, the ferry service was resumed from 5<sup>th</sup> February 2005 onwards.

M/s. Poompuhar Shipping Corporation Limited has taken action to replace the existing two old launches viz., M.L.Thamiraparani and M.L.Bhagirathi which are nearly 30 years old, by acquiring two new launches with financial assistance from Tourism Department, Government of India through Tamil Nadu Tourism Development Corporation Limited.

### Tamil Nadu Maritime Academy

The Tamil Nadu Maritime Academy was set up at Thoothukudi and inaugurated on 16.09.1998. The Academy has so far completed 10 batches of pre-sea rating course. The Academy initially conducted Seaman and Engine Rating Training courses. Now the Academy is conducting General Purpose Crew Course instead of Deck and Engine Rating Crew with the same number of trainees i.e. 40, in each 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". These training courses will help the trainees to get better employment opportunities on ships.

> O. PANNEERSELVAM, Minister for Public Works, Prohibition & Excise and Revenue