

7. TRANSPORT AND COMMUNICATION

The significance of transportation cannot be over-emphasised in that the road network contributes significantly to the growth process. Well-knit transport system is instrumental in initiating and accelerating economic growth and development by way of improving overall productivity, enlarging market and reducing cost of production. Infrastructure sector requires high upfront cost and longer gestation period. The State is according top priority for road connectivity during the successive Five Year Plan periods.

7.1. Plan Investment for Development of Transport:

Tamil Nadu's Tenth Plan fixed the monitorable target for road infrastructure as to provide all weather roads to all habitations with population of 500 and above by 2007. As stipulated in the Tenth Plan, to make the State as a leading player in the field of IT by 2006, ranking top in manufactured goods exporter in India by 2008, to provide electricity, trunk road, telephone and internet connectivity, school, drinking water and sanitation facilities to all villages by 2010, increasing the allocation of plan investment on road is an essential prerequisite. During the successive Five year Plan periods, the public sector investment for road sector had increased from Rs.342.13 crores during the Seventh Five Year Plan to Rs.6730 crores in the Tenth Five Year Plan. The ratio of expenditure on transport and communication in total outlay had increased to 16.83 per cent in the Tenth Five Year Plan from 5.42 per cent in the Seventh Five Year Plan. Consistent with the priority assigned to this sector and the need to accelerate the pace of road development, the Government recently signed an agreement with the World Bank.

Table - 1: Plan Outlay for Transport and Communication

Plan Period	Total Plan Outlay (Rs. Crores)	Outlay for Transport (Rs. Crores)	Percentage of Outlay for Transport to Total Outlay
VII Five Year Plan	6316.07	342.13	5.42
VIII Five Year Plan	14016.80	1465.55	10.46
IX Five Year Plan	24916.80	2959.40	11.88
X Five Year Plan	40000(Outlay)	6730.00	16.83

Source: State Planning Commission, Chennai-5.

7.1.1. Road Network:

The road networks in the State run through the length and breadth of State. The total length of roads in the State falls into five major categories such as National Highways, State Highways, District Roads, Village Roads and Others (Project Roads). As of 2002-03, the total length of roads stood at 179783 kms. Out of which roads maintained by Panchayat Union and Village Panchayat accounted for major proportion of 46.09 per cent, followed by district roads 27 per cent and others 20.76 per cent, State Highways 4.01 per cent and National Highways 2.14 per cent.

Though National and State Highways are durable for longer time, District roads lack bridges and culverts, the Panchayat Union roads and Village Panchayat roads are mostly unsurfaced, narrow and unsuitable for heavy mechanised traffic and are usable

only during dry season. They are vulnerable to natural forces such as flood, etc. In respect of other roads which include project roads are in dense forests, high mountains and sugarcane areas serve the special purpose. Since most of the length of roads remain unsurfaced that would affect the durability and quality of assets and the vehicles plying on the roads.

Table - 2 : Length of Roads (in kms)

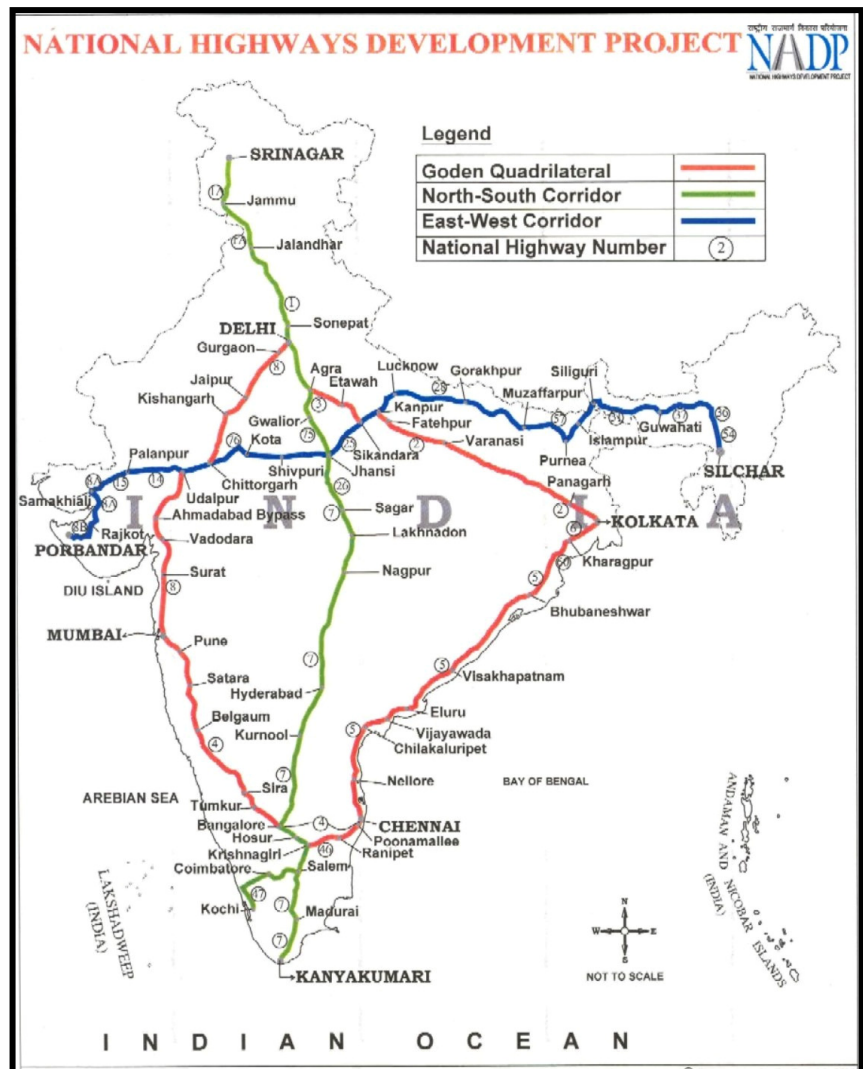
Sl. No.	Type of Roads	2000-01	2001-02	2002-03	Percentage
1.	National Highways	3865	3850	3850	2.14
2.	State Highways	4168	7163	7222	4.01
3.	District Roads	51229	48325	48533	27.00
4.	Panchayat Union Village Roads*	82854	82859	82859	46.09
5.	Others*	37075	37122	37319	20.76
	Total	179196	179319	179783	100.00

*- Provisional.

Source: Concerned Departments.

7.1.2. Golden Quadrilateral Road:

Golden Quadrilateral Road is a part of National Highways Development Project (NHDP) launched to give connectivity to all the metro cities with a standard of international quality. The NHDP envisages the expansion of the existing two lane highways to 4/6 lanes about 13000 kms. comprising of 6000 kms. long Golden Quadrilateral (GQ) connecting four metro cities viz. Delhi - Mumbai - Chennai - Kolkata - Delhi and 7000 kms. of North - South and East - West corridors connecting Srinagar - Kanyakumari (including Kochi to Salem Spur) and Silchar to Porbandar. This will also connect all State capitals and major centers of economic importance with 4 lane highways.



Box-1
Benefits of Golden Quadrilateral Road

On the completion of projects benefits flow in terms of :

- *Annual savings of Rs.8000 crores on fuel, wear and tear of vehicle costs;*
- *Reduction in journey time, safe movement of passengers and goods are additional;*
- *Provide big boost to cement, steel, road construction, automobile and tourism industries;*
- *Fast access to markets for agricultural and industrial products and increase the export potential and*
- *Generate employment for over 5 lakh people every day.*

7.1.3. Golden Quadrilateral Road in Tamil Nadu:

The National Highways Authority of India (NHAI) had proposed to upgrade the following National Highways to 4/6 lane under Golden Quadrilateral and North-South Corridor projects in the State.

Golden Quadrilateral connecting the Four Metros- Projects under Implementation

1. NH 4 (Poonamallee - Kanchipuram - Wallajah Section)	93.00 kms.
2. NH 5 (Chennai - Kolkata Road)	42.00 kms.
3. NH 7 (Hosur - Krishnagiri Section)	45.40 kms.
4. NH 46 (Krishnagiri - Vaniyambadi - Pallikonda - Wallajah Section)	143.00 kms.
Total	323.40 kms.

North South Corridor connecting Kashmir and Kanyakumari - Projects under Implementation:

1. NH 7 (Bangalore - Salem - Madurai Section)	362 kms.
2. NH 7 (Madurai - Kanyakumari Section)	232 kms.
3. NH 47 (Salem - Cochin Section)	182 kms.
Total	776 kms.

Apart from this, the NHAI has also taken up improvements for four laning and strengthening of NH 45 for 55 kms. and strengthening of 39.20 kms. under BOT Annuity Scheme are in progress. Out of 3850 kms. of NH roads in the State, 1194 kms. is proposed for upgradation for 4/6 lane, of which works are in progress about 450 kms.

7.1.4. Rural Road Scheme:

Since agriculture is the mainstay of the villages, it is proposed to improve village roads to all-weather roads (upto BT standards) to enable the village people to transport their agricultural products to the nearby town speedily.

Under Rural Road Scheme, three criteria are adopted for taking up works.

- The Village population should be more than 500 as per 1999 estimates.
- The prescribed road length should be more than 1.60 km. and
- The villages should not have been connected by any other BT road.

As per the above criteria, villages with population between 500-1000 had been taken up since 1.4.99 and 4806 villages were identified without having all weather road connectivity. So far 764 villages had been covered upto 2002-03. Under Special Component Scheme, road connectivity is given for villages having more than 50 per cent of adi-draavidar population. As on 2002-03, connectivity was given to 238 villages with population between 500-1000.

Under Bus Route Improvement Scheme, the Panchayat Union Roads on which buses are plying for more than three years are taken up for improvement as BT roads in par with the standard of other district roads.

Box-2
Road Policy and Road Safety

New Road Policy of the State which is under formulation envisages the objectives such as

- *To maximise socio-economic benefits;*
 - *To leverage market resources through public-private participation;*
 - *To upgrade road construction, design, planning and execution through state of art-technology and*
 - *To ensure professional management of highway assets and resources.*
- Road safety is an integral part of the New Road Policy of the State. The Road Safety Policy 2001 of Tamil Nadu outlines 4-Es of Road Safety viz. Engineering, Enforcement, Emergency Medical Relief and Education.*

Tamil Nadu has the unique feature of having a Road Safety Fund to deal with road safety network, educating the road users and emergency medical response on accident trauma cases.

7.1.5. Private - Public Participation:

The demand for strengthening the road network, as well their upkeep places an enormous strain on investible funds. Therefore, an innovative strategy of Private-Public Partnership (PPP) is being encouraged. However, up-gradation, periodical maintenance and strengthening of created assets become difficult simultaneously with construction of near-bye-passes, bridges, high quality roads etc. need more capital and private sector participation in the development of certain important roads in the State. Tamil Nadu Road Development Company (TNRDC) a joint venture company of TIDCO and IL&FS had been formed to identify the roads on commercial format, plan, design and implement it as Managers of the Project. For managing the part of East- Coast Road, Salem-Ulundurpet

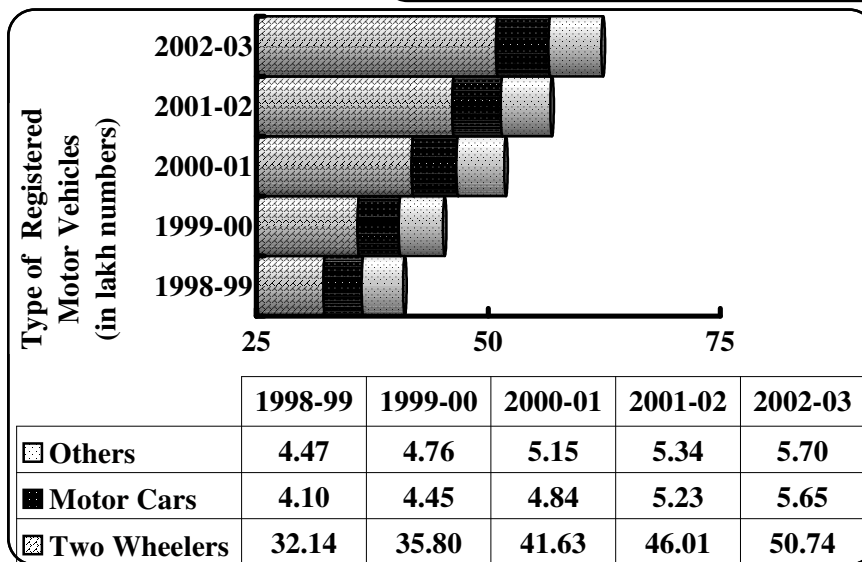
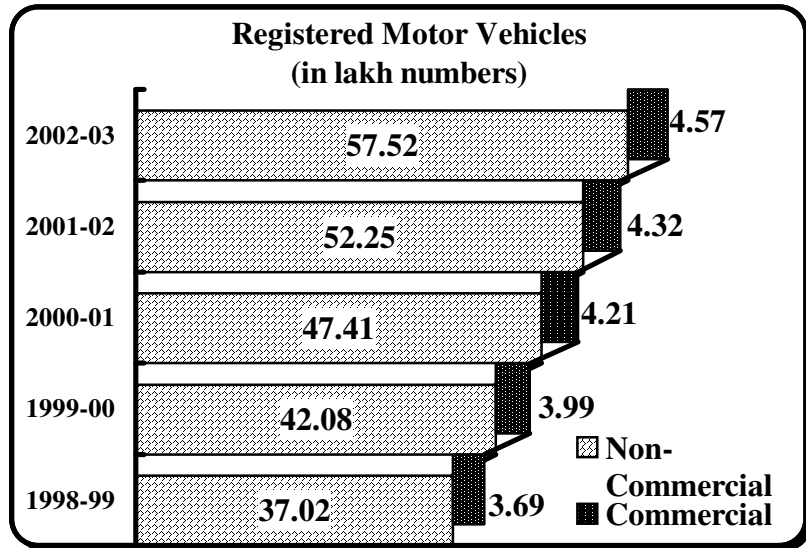
road, Dindigul - Coimbatore road, had been entrusted to TNRDC under private participation.

7.1.6. Build, Operate and Transfer Projects (BOT):

Since road infrastructure projects are capital intensive, BOT Models have been advocated. The feasibility of entrusting road and bridge works with private participation on BOT basis is being examined. To execute some bridge works in the State, on BOT concept, a Malasiyan Company agreed to consider the bridge across Kollidam river at Anaikarai, high level bridge across Cauvery river to connect Mohanur and Vangal and another bridge across Cauvery river to connect Kokkarayanpettai with Lakkapuram. The private participation not only reduces the financial burden of the State but also enhances the maintenance and quality of the road.

7.2. Vehicle Population:

The State is endowed with a well developed transport system. Vehicle population in the State is ever increasing over the years because of increasing incomes, urbanisation, preference for personalised mode of transport and easy availability of credit for vehicle purchase. The



registered motor vehicle population in the State had increased by 5.51 lakh numbers from 56.58 lakhs in 2001-02 to 62.09 lakhs in 2002-03 registering a growth of 9.74 per cent. Out of 62.09 lakh vehicles, commercial vehicles had accounted for only 7.37 per cent and

non-commercial vehicles claimed the balance of 92.63 per cent. In the non-commercial category, mechanised two wheelers such as motor cycles, scooters and mopeds alone accounted for 88.21 per cent. The number of stage carriages, mini buses and omni buses group had declined by 1.31 per cent during 2002-03.

Table - 3: Registered Motor Vehicle Population

(Numbers)

Type	2000-01	2001-02	2002-03
Commercial Vehicles:	421365 (5.53)	432106 (2.55)	457448 (5.86)
Stage Carriages, Mini Buses, and Omni Buses	26817 (12.19)	27497 (2.54)	27138 (-1.31)
Auto Rickshaws	108090 (7.17)	111942 (3.56)	119719 (6.95)
Ordinary Taxi, Motor Cab and Maxi Cab	61032 (8.56)	64036 (4.92)	69804 (9.01)
Lorry & Light Commercial Vehicles	177874 (2.42)	178231 (0.20)	185009 (3.81)
Miscellaneous: Private Sector Vehicles, School Bus, Ambulance, Fire Fighter, Articulated Vehicles and Tractor & Trailer	47552 (6.50)	50400 (5.99)	55778 (10.67)
Non-commercial Vehicles:	4740717 (12.66)	5225991 (10.24)	5751589 (10.06)
Motor Cycles, Scooters and Mopeds	4163002 (13.14)	4600565 (10.51)	5073643 (10.28)
Motor Cars, Station Wagons and Jeeps	484459 (8.88)	522822 (7.92)	564570 (7.99)
Miscellaneous: Tri-Cycle Auto, Tractors, Three Wheelers, Four Wheelers, Road Roller and others	93256 (11.75)	102604 (10.02)	113376 (10.50)
Grand Total	5162082 (12.04)	5658097 (9.61)	6209037 (9.74)
Density of Motor Vehicle per sq. km.	40	44	48
Motor Vehicles per lakh Population	8338	9065	9998

(Figures in brackets indicate percentage change over the preceding year).

Source: Commissioner of Transport, Chennai 5.

7.2.1. Performance of State Transport Undertakings:

The total fleet strength of stage carriages operated under public sector undertakings in the State had declined to 16670 in 2002-03 from 16797 in 2001-02. The decrease in the strength of public sector vehicles simultaneously is causing over-crowding and non-punctuality of services. Despite the reduction in the fleet strength, the efficiency of public transport in terms of kilometre operated per day had increased from 61.25 lakh kms. in 2001-02 to 62.84 lakh kms. in 2002-03 but the total number of passengers carried per day had declined from 162.31 lakhs to 156.28 lakhs for the same period. In terms of revenue earned by the STUs, had improved from Rs.2921.60 crores in 2001-02 to Rs.3281.32 crores in 2002-03 and had covered the expenditure of Rs.3235.53 crores during 2002-03 by 99 per cent.

7.3. Railways:

Railways play an important role in economic development. Railways account for the transportation of about 80 per cent of goods and about 60 per cent of passengers. Total length of railways in the state stood at 4176.63 kms. during 2002-03. Out of which, broad gauge accounted for 49.59 per cent. In spite of the railway network in the State remaining almost stagnant from 1998-99 onwards, its role in the economic development of the State can hardly be over-emphasised. In the State, railways have enhanced the commercial value of agriculture and industrial products, help to establish various industries in different locations and facilitating expansion in volume of trade.

Table – 4 : Length of Railway Route in Tamil Nadu By Category (in Kilometers)

Sl.No.	Type of Gauge	2001-02	2001-02	2002-03
1.	Broad Gauge	2043.72 (48.88)	2043.72 (48.88)	2071.02 (49.59)
2.	Metre Gauge	2137.16 (51.12)	2137.16 (51.12)	2105.61 (50.41)
	Total	4180.88 (100.00)	4180.88 (100.00)	4176.63 (100.00)

(Figures in brackets indicate percentage share to total).

Source: Southern Railway, Chennai 3.

7.3.1. Route Length:

Route length refers to the distance between two points on a railway treating all lines on the section a single line. During 2002-03 the State accounted for 6.61 per cent of the total route length of 63140 km. in the country and 58.07 per cent of total route of 7192.88 km. operated by Southern Railways which served the areas of Tamil Nadu, Kerala, Karnataka, Southern Maharashtra and Southern Andhra Pradesh. The route length had remained at 4176.43 kms. and new routes were not formed in the State by the Southern Railways. The progress on proposed new broad gauge line between Salem and Karur for the distance of 85 kms. has been affected due to resource constraint. The density of route (in terms of 1000 sq.km. of geographical area) more or less remains to 6.61 kms. for years while the route length per lakh population is decreasing. However, the ever increasing passengers and goods traffic is met out by enhancing the long distanced super fast trains and goods shuttles. Turn-around of a wagon refers to interval of time between two successive landings of a wagon. The turn around of a wagon in the State for B.G. had declined from 4.99 days during 2000-01 to 4.16 days in 2002-03 whereas it was increased from 17.71 days to 33.11 days for M.G. in the same period.

Table - 5 : Railway Route Length - Tamil Nadu and All India

Year	Total Route Length (Kms.)		% share of Tamil Nadu	Route Length (Kms.) per '000' Sq.Km. of Area		Route Length per 100,000 population (Kms.)	
	Tamil Nadu	All India		Tamil Nadu	All India	Tamil Nadu	All India
2000-01	4180.88	63028	6.63	32.18	19.17	6.75	6.19
2001-02	4180.88	63140	6.62	32.18	19.21	6.70	6.09
2002-03	4176.63	63140	6.61	32.15	19.21	6.64	5.98

Source: 1. Southern Railways, Chennai - 3.

2. Infrastructure, March 2004, CMIE, Mumbai. 3. Economic Survey, 2002-03, CSO, New Delhi.

7.3.2. Gauge Conversion:

Under the UNIGAUGE Projects all over the country, the Indian Railways is implementing number of gauge conversions for comfortable travel and faster movement of freights, raw materials, finished products to the transshipment points. Broad gauge conversion yields better returns and increased efficiency. Out of 4176.63 kms. of total length, the broad gauge is accounted for 49.59 per cent.

The gauge conversion in the State is in slow progress due to poor allocation of funds in the subsequent railway budgets. Gauge conversion in the State was undertaken for 702.74 kms. only between 1995-96 to 2002-03 at an average rate of about 100 kms. for the period of seven years. The diversity of track gauges responsible for long delays and causing for losses at the transshipment points.

Poor allocation of funds in the railway budget, delayed the project of gauge conversion in the State viz. Quilon - Tirunelveli - Tiruchendur and Tenkasi - Virudhunagar, Tiruchi - Tanjavur - Nagore line, Salem - Vriddhachalam - Cuddalore project (for which State Government is sharing 50 per cent of the project cost), Madurai - Rameswaram, Tiruchi - Manamadurai etc.

Box-3

Cost sharing projects on 50:50 basis (Railways and State Government)

<u><i>Gauge Conversion</i></u>	<u><i>Cost (Rs. crores)</i></u>
<i>Cuddalore - Viruddhachalam</i>	<i>198.68 (By Industries Department)</i>
<i>Chennai Beach - Tambaram</i>	<i>520.00 (By Transport Department)</i>
<i>MRTS : Beach to Velacherry (New Line)</i>	<i>2/3 cost by Railways and 1/3 cost by Housing Department</i>

7.3.3. Electrification of Route:

Power traction is pollution-free and environmentally-friendly. About one-third of the Route kms. in the State had been electrified. Steam locomotives had been entirely replaced by diesel and electro locomotives. Out of total railway route length of 4176.63 kms. during 2002-03, 1062.24 kms. (25.43%) had been electrified.

Broad gauge accounted for a larger proportion of 21.61 per cent as against 3.82 per cent in metre gauge. The economic viability of electrified routes is determined by the rate of returns and tariffs for power supplied by the Electricity Board. Between 1995-96 and 2002-03, the total electrification of route length was 210.42 kms. in the broad gauge section.

Table - 6
Electrified Network of Railway Route Length
(in Kilometers)

Sl.No.	Type of Gauge	2000-01	2001-02	2002-03
1.	Broad Gauge	2043.72	2043.72	2071.02
i.	Electrified	733.17 (35.87)	865.03 (42.33)	902.41 (43.57)
ii.	Non-Electrified	1310.55 (64.13)	1178.69 (57.67)	1168.61 (56.43)
2.	Metre Gauge	2137.16	2137.16	2105.61
i.	Electrified	164.08 (7.68)	164.08 (7.68)	159.83 (7.59)
ii.	Non-Electrified	1973.08 (92.32)	1973.08 (92.32)	1945.78 (92.41)
3.	Total	4180.88	4180.88	4176.63
i.	Electrified	897.25 (21.46)	1029.11 (24.61)	1062.24 (25.43)
ii.	Non-Electrified	3283.63 (78.54)	3151.77 (75.39)	3114.39 (74.57)

Figures in brackets indicate the percentage share to the corresponding total.

Source: Southern Railways, Chennai - 3

7.3.4. New Routes and Doubling:

The proposed new route at the cost of Rs.225.5 crores between Salem and Karur for the distance of 85 kms. lags still behind the schedule of 2003 and require further Rs.160 crores and five more years. Acquisition of lands and economic feasibility of financial viability of the study was already over. The insufficient fund allocation in the successive Railway Budget fails short of the requirements.

The survey for other new lines viz. Kumbakonam - Namakkal, Jolarpettai - Krishnagiri - Hosur, Katpadi - Chennai via. Guindy and Poonamallee, Tindivanam - Cuddalore via. Pondicherry and Madurai - Tuticorin via Virudhunagar, Aruppukottai and Vilathikulam and Taramani - Mamallapuram had been completed.

Doubling of the line would reduce the travel time and increase the number of traffic. Though doubling of line had been undertaken by the Southern Railway for the length of 79.82 kms. in 2000-01, 31.48 kms. in 2001-02, 31.59 kms. in 2002-03, it was noted that such doubling occurred outside Tamil Nadu.

7.3.5. Sub-urban and MRTS:

Sub-urban traffic is looked after by the Metro Service in Chennai, ease the traffic burden in the City and provide services at subsidised cost compared to the bus fare. The existing MRTS length in the State as on 2002-03 was 8.66 kms. The MRTS between Beach to Thirumailai is already opened for the traffic and the second phase from Thirumailai to Velachery is getting ready for the traffic. The patronage to MRTS is expected to increase in future.

7.4. Waterways:

Waterways is another important mode of transport in the nation from times immemorial.

7.4.1. Inland Waterways:

Though inland navigation plays a vital role in the transport system, it lost its importance with the introduction of railways and almost all villages are connected through buses. It is noted that there is no worthwhile major inland waterways in the State. Even the Buckingham Canal starting from Andhra Pradesh and extending upto Marakkanam in Tamil Nadu was used for navigation connecting some lagoons had been abandoned in the recent past.

7.4.2. Sea Routes:

Sea routes facilitate internal and external trade through ports. Tamil Nadu has 1000 km. of coastline out of 6100 km. for the country accounting for about 16 per cent. Out of 13 major ports in India, Tamil Nadu has three major ports on her east coastline, two intermediary ports and 12 minor ports. Chennai, Tuticorin and Ennore are maintained by the Indian Government and declared as major ports for the facilities they have possessed such as all weather sheltered harbour, modern berths which can take alongside with them ships with a draft of at least 10 metres and access to hinterland by inland transport system. Intermediary and minor ports are maintained by the State Government.

7.4.3. Chennai Major Port:

The three major ports serve an hinterland rich in industry and agriculture. The performance of these ports in terms of cargo handled is presented below.

7.4.4. Cargo Traffic at Major Ports:

The total cargo traffic comprising of overseas and coastal by the three major ports in the State during 2002-03 had increased to 55466 thousand tonnes from 52533 thousand tonnes in 2001-02. Of the total cargo handled,

overseas constituted a major portion of 59.06 per cent and coastal cargo 40.94 per cent. Chennai port had handled 60.73 per cent of the total cargo. Tuticorin accounted for 23.97 per cent and Ennore 15.30 per cent.

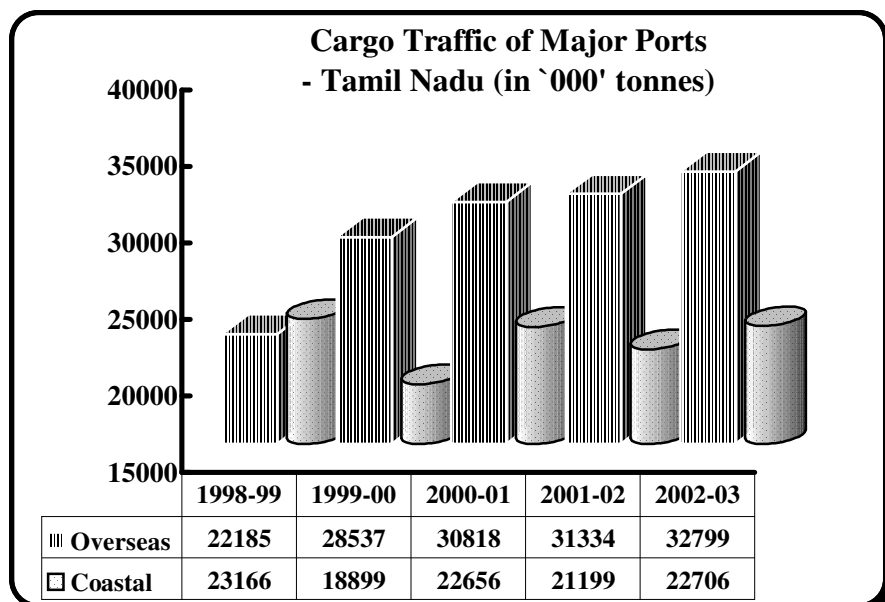


Table - 7 : Overseas and Coastal Cargo Traffic at Major Ports in Tamil Nadu
(000' tonnes)

Name of major port	2001-02			2002-03		
	Overseas cargo	Coastal cargo	Total	Overseas cargo	Coastal cargo	Total
Chennai	24093 (-2.67)	12022 (-26.99)	36115 (-12.38)	25121 (4.27)	8567 (-28.74)	33688 (-6.72)
Ennore	-	3401	3401	-	8485 (149.49)	8485 (149.49)
Tuticorin	7241 (18.82)	5776 (-6.69)	13017 (5.97)	7639 (5.50)	5654 (-2.11)	13293 (2.12)
Total	31334 (1.58)	21199 (-6.43)	52533 (-1.81)	32760 (4.55)	22706 (7.11)	55466 (5.58)
All Major Ports	206327 (15.19)*	81261 (26.09)*	287588 (18.27)*	229422 (14.28)*	84107 (27.00)*	313529 (17.69)*

Note: Figures in bracket indicate percentage change over the previous year.

* Tamil Nadu's Major Ports share to All Major Ports.

Source: 1. Concerned Ports; 2. Infrastructure, March 2004, CMIE, Mumbai.

One of the challenges faced by ports is competition and also the need to improve productivity and operational efficiency. The turn around time for the ship refers to the time between a ship arriving in a port and sailing. The average turn around time in the Chennai port and Tuticorin ports had declined during 2002-03 which was 5.80 days for Chennai port during 2000-01 reached down to 3.70 days in 2002-03. For Tuticorin port it declined from 4.10 days to 3.59 days. However, improved efficiency of ports and management is also being ensured by privatisation of certain operations like containers.

7.4.5. Imports and Exports of Major Ports:

The trading pattern had changed considerably. Notable changes could be observed both in direction and composition of trade. The present trade directed towards strengthening the export base in order to take the advantage of globalisation.

Table - 8 : Imports and Exports of Major Ports in Tamil Nadu
(Excluding Transshipment) ('000' tonnes)

Sl. No.	Major Port	2000-01		2001-02		2002-03	
		Import	Export	Import	Export	Import	Export
1.	Chennai	28548 (17.79)	12300 (12.00)	23038 (14.34)	12975 (11.75)	19606 (11.67)	14082 (10.80)
2.	Ennore	-	-	3401 (2.12)	-	8485 (5.05)	-
3.	Tuticorin	9839 (6.13)	2445 (2.39)	9811 (6.11)	3205 (2.90)	9564 (5.69)	3729 (2.86)
	Total for Tamil Nadu	38387 (23.92)	14745 (14.39)	36250 (22.57)	16180 (14.65)	37655 (22.41)	17811 (13.66)
	All Major Ports	160486	102486	160634	110445	168038	130355

Note: Figures in brackets indicate the percentage share to All Major Ports. Source: Concerned Ports.

During 2002-03, a total of 37655 thousand tonnes of goods were imported through the major ports and 17811 thousand tonnes exported. It was noted that the quantum of export had increased to 17811 in 2002-03 from 16180 thousand tonnes in 2001-02

implied the strengthening of export base in the State and importing commodities that are required for further industrial development.

7.4.6. Composition of Commodities for Imports and Exports at Chennai and Tuticorin Ports:

In the composition of commodities imported through Chennai port, petroleum, oil and lubricants was the major items accounting for 40.77 per cent during 2002-03 followed by coal and containerised cargo. In the Tuticorin port, import of coal (57.81%) constituted major portion next to containerised items and fertiliser.

Chennai port exported iron ore (56.42%) as a major portion during 2002-03, followed by containerised items. In the Tuticorin port containerised cargo (36.87%) was the major exporting item followed by other cargo (21.02%) and salt accounted for 4.85 per cent.

Table -9 : Commodity-wise Imports and Exports at Chennai and Tuticorin Ports During 2002-03 ('000' tonnes)

Sl. No.	Name of Commodity	Imports			Exports		
		Chennai	Tuticorin	Total	Chennai	Tuticorin	Total
1.	POL	7993	491	8484	953	-	953
2.	Salt	-	-	-	-	181	181
3.	Sugar	-	36	36	-	514	514
4.	Iron Ore	-	-	-	7945	-	7945
5.	Edible Oil	494	90	584	-	-	-
6.	Foodgrains	-	-	-	-	704	704
7.	Other Ores	-	586	586	443	122	565
8.	Other Cargo	201	792	993	568	784	1352
9.	Iron and Steel	406	-	406	-	-	-
10.	Other Liquid Cargo	-	93	93	-	37	37
11.	Container	3683	926	4609	3536	1375	4911
12.	Coal	5818	5529	11347	-	-	-
13.	Fertilisers	609	147	756	-	6	6
14.	Fertiliser raw-material	402	874	1276	-	6	6
15.	Granite	-	-	-	597	-	597
16.	Cement	-	-	-	40	-	40
	Total	19606	9564	29170	14082	3729	17811

Note: Figures in brackets indicate the percentage share to total.

Source: Infrastructure -March 2004, CMIE - Mumbai.

7.4.7. Ennore Port:

The first corporatised port of India commencing from 2001 is emerging third major port of Tamil Nadu. It imported 8485 thousand tonnes of coal during 2002-03 which was more than doubled as against 3401 thousand tonnes of coal imported during 2001-02.

7.4.8. Imports and Exports at Minor Ports:

Imports of naphtha, liquid ammonia, edible oils, propylene gas and crude oil and exports of crude oil and general cargo are major items handled by the minor ports in the State.

7.5. Airways:

All the State capitals, major cities of administration business, industrial, tourist importance have air links with Chennai. Chennai International Airport has well international air links with east and western countries. Tiruchirapalli and Coimbatore also have international air traffic facilities. The domestic airports in Chennai, Coimbatore, Tiruchirapalli and Madurai are well connected. The total number of aircrafts movements in the airports of the State had increased to 52465 during 2002-03 from 45709 in 2001-02. Both domestic and international airports in the State had witnessed an increase in the passenger and cargo movement.

Table - 10 : Civil Aviation : Aircraft, Passenger, Cargo traffic at Domestic International Airports of Tamil Nadu and All-India

Year	Tamil Nadu			All-India		
	Aircraft movements (Nos.)	Passenger handled (Lakh Nos.)	Cargo Handled ('000' tonnes)	Aircraft movements (Nos.)	Passenger handled (Lakh Nos.)	Cargo Handled ('000' tonnes)
Domestic						
2000-01	32545 (8.41)	26.03 (9.29)	27 (9.38)	386575	280.18	288
2001-02	32537 (8.09)	23.78 (9.01)	28 (9.52)	402252	263.90	294
2002-03	36680 (8.26)	25.85 (8.86)	33 (9.88)	444192	291.61	334
International						
2000-01	12559 (12.17)	18.96 (13.53)	82 (14.70)	103211	140.09	558
2001-02	13172 (12.22)	18.00 (13.22)	95 (16.96)	107707	136.13	560
2002-03	15785 (13.56)	20.29 (13.68)	108 (16.64)	116386	148.27	649
Total						
2000-01	45104 (9.21)	44.99 (10.71)	109 (12.88)	489786	420.27	846
2001-02	45709 (8.96)	41.78 (10.44)	123 (14.41)	509959	400.03	854
2002-03	52465 (9.36)	46.14 (10.49)	141 (14.36)	560578	439.88	983

Note: Figures in brackets indicate the percentage share to All India.

Source: Infrastructure, March 2004, CMIE, Mumbai.

7.6. Communication System:

Communication is one of the driver of economic growth. Tamil Nadu has well established communication net work. Tamil Nadu which is emerging as an IT power house largely due to the communication back bone already in position starting from posts and telegraphs to broad bound connectivity.

7.6.1. Postal System:

With the construction and development of railways and trunk roads, number of post offices are increasing with uniform postage system connecting all villages in India and contacts are made possible outside the country. Introduction of Postal Index Code of six digits quicker the communication by identifying the local post offices. The value added services such as speed post, telegraph money order, postal savings, Postal Life Insurance are provided by the postal system. However, the number of postal traffics in the State had declined to 12260.3 lakh during 2001-02 from 16744.8 lakh in 2000-01.

Table : 11 Postal Network and Traffic - All India and Tamil Nadu : 2001-02

Sl. No.	Parameters	All India	Tamil Nadu	% share to All India
1.	Post Offices (nos.)	155295	12189	7.85
2.	Letter Boxes (nos.)	588996	59433	10.09
	Value Added Services			
3.	Distance over which mails carries (^000' kms.)	4089.6	112.7	2.76
4.	Total Postal Traffic (Lakh nos.)	110306.8	12260.3	11.11
5.	Indian Money Order issued (Lakh nos.)	1121.8	213.6	19.04
6.	Foreign Money Order issued (nos.)	N.A.	8123	-

Source: Infrastructure March 2004, CMIE, Mumbai.

7.6.2. Internet Revolution:

Department of Telecommunication has made great strides in carrying information along the 'Information Super Highway'. Personal computer with internet connectivity have made a revolution in all the fields. Internet facilitates sharing the information to any geographic location saving money, time and energy. During 2001-02 the number of basic telephone connections were about 27.80 lakhs and cellular phones accounted for 2.95 lakhs and number of pagers were 78712. It is noted that 100 per cent of village panchayats were covered by phones as against 82.90 per cent for the nation as a whole during 2001-02. Vast spread of telephone connectivity has helped to revolutionise internet use on a significant scale.

Table - 12 : Circle-wise Tele-communications - All India and Tamil Nadu during 2001-02

Parameters	All India	Tamil Nadu	% share in All India total
1. No. of Telephone Exchanges	35023	1976	5.64
2. Direct Exchange Lines (^000' Nos.)	37698	2780	7.37
3. Total Subscribers (Lakh Nos.)	447.22*	30.75	6.88
i. Cellular Subscribers	64.31	2.95	4.59
ii. Basic Services	376.98	27.80	7.37
4. Direct Exchange Lines in Rural Areas (Lakh Nos.)	90.11	1.65	1.83
5. Village covered by VPT	503617	17899	3.55
a. Percentage of Villages covered by VPT	82.90	100.00	-
6. Radio Paging Service:			
i. Service Providers (Nos.)	68	8	11.76
ii. Subscribers	624825	78712	12.60

*Includes 5.93 lakh of private sector.

Source: Infrastructure March 2004, CMIE, Mumbai.